

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

ULTRATEC, INC. and CAPTEL, INC.,

Plaintiffs,

v.

SORENSEN COMMUNICATIONS, INC.
and CAPTIONCALL, LLC,

Defendants.

OPINION AND ORDER

13-cv-346-bbc

In this civil action, plaintiffs Ultratec, Inc. and CapTel, Inc., contend that defendants Sorenson Communications, Inc. and CaptionCall, LLC have infringed the following eight patents related to a telephone relay system between deaf and hearing users: United States Patents Nos. 5,909,482, 6,233,314, 6,594,346, 6,603,835, 7,319,740 and 7,555,104, all entitled "Relay for Personal Interpreter;" and United States Patents Nos. 7,003,082 and 8,213,578 entitled "System for Text Assisted Telephony." In addition to challenging plaintiffs' contentions and raising several affirmative defenses, defendants have filed counterclaims contending that plaintiffs' patents are invalid as anticipated and as obvious, that plaintiffs have infringed defendants' United States Patent No. 8,379,801 related to text caption error correction and that plaintiffs breached a contract between plaintiff Ultratec and the Federal Communications Commission governing the licensing of plaintiffs' technologies.

Several motions are before the court, including various motions to strike and the parties' cross motions for partial summary judgment on issues of direct and indirect infringement, invalidity, willfulness, breach of contract, marking and various other affirmative defenses raised by defendants. This opinion will address the following motions:

- Plaintiffs' motion for partial summary judgment, dkt. #87, with respect to 1) plaintiffs' claims that defendants directly infringe claims 1 and 6 of the '482 patent, claim 2 of the '314 patent, claim 2 of the '104 patent, claims 7-8 of the '578 patent and claim 1 of the '082 patent; and 2) defendants' counterclaims that the '482, '314, '835, '082, '740, '104 and '578 patents are invalid as anticipated by prior art. (In the same motion, plaintiffs seek summary judgment with respect to defendants' breach of contract claim, affirmative defenses and alleged infringement of the '801 patent, but those issues will be or have been addressed in separate opinions.)
- Defendants' motion for partial summary judgment, dkt. #79, with respect to plaintiffs' claims of 1) willful infringement; 2) induced infringement; 3) contributory infringement; and 4) entitlement to pre-suit damages for the '082, '104 and '314 patents (marking). (Defendants also seek summary judgment with respect to plaintiffs' request for injunctive relief, but that issue will be addressed in a separate opinion.)
- Plaintiffs' motion to strike as untimely defendants' cross motions for summary judgment with respect to non-infringement and anticipation. Dkt. #165.
- Plaintiffs' motion to strike undisclosed opinions of defendants' invalidity expert, Benedict Occhiogrosso. Dkt. #178.
- Defendants' motion to strike the declaration of Ultratec's vice president, Kevin Colwell. Dkt. #241.

Plaintiffs moved initially for summary judgment on their allegations that defendants infringe the '835 and '740 patents by inducing third parties to perform at least one of the steps in the recited method. They have withdrawn those parts of their motion in light of the Supreme Court's recent decision in Limelight Networks, Inc. v. Akamai Technologies, Inc.,

— U.S. —, 134 S. Ct. 2111 (June 2, 2014). Dkt. #237. Defendants contend that the Supreme Court’s decision completely forecloses all of plaintiffs’ claims of induced infringement of the ‘835 and ‘740 patents. Dkt. #240. However, as plaintiffs point out, even though they are barred by Limelight from arguing that defendants induced infringement regardless who committed what steps of the disclosed method, they may still attempt to prove at trial that 1) defendants directly infringe the ‘835 and ‘704 patents by performing all of the steps of the claimed methods themselves; or 2) defendants induced infringement by controlling and directing another entity (such as their licensees) to perform all of the method steps. The parties have not had an opportunity to brief either of these issues because defendants did not move for summary judgment on direct infringement and limited their motion for summary judgment on indirect infringement to whether they had the intent to induce. Allowing further briefing, as defendants request, would be equivalent to granting defendants leave to file a second (and late) motion for summary judgment, which I decline to do.

For the reasons explained below, I am granting plaintiffs’ motion for partial summary judgment and entering judgment in favor of plaintiffs with respect to the following issues:

- Direct infringement of claim 1 of the ‘482 patent, claim 2 of the ‘104 patent, claims 7 and 8 of the ‘578 patent and claim 1 of the ‘082 patent.
- Nonanticipation of the ‘082, ‘740 and ‘578 patents by the ‘835 patent (Engelke ‘685).
- Nonanticipation of the ‘314, ‘835, ‘740, ‘104 and ‘578 patents by the McLaughlin and Liebermann references.

- Nonanticipation of plaintiffs' patents-in-suit by the Engelke '482 (the '482 patent), Wycherly, Vasile, Gopalakrishnan, Bowater, Sharman and Engelke '405 references.

Plaintiffs' motion for partial summary judgment will be denied and the parties will proceed to trial with respect to the following claims because genuine issues of material fact remain in dispute:

- Direct infringement of claim 6 of the '482 patent and claim 2 of the '314 patent.
- Anticipation of the '082 patent by McLaughlin and Liebermann.
- Anticipation of claim 1 of the '482 patent, the '314 patent and claim 7 of the '578 patent by Ryan.

Defendants' motion for partial summary judgment will be granted and judgment entered in favor of defendants on plaintiffs' claims for contributory infringement and claims for pre-suit damages for the '082, '104 and '314 patents. Defendants' motion will be denied and the parties will proceed to trial on plaintiffs' claims of willful infringement and claims of induced infringement.

Because I agree that defendants' cross motions for summary judgment with respect to direct infringement and anticipation are untimely, I will grant plaintiffs' motion to strike those motions. Plaintiffs' motion to strike the undisclosed opinions of Occhiogrosso and defendants' motion to strike the declaration of Colwell will be denied as moot because it was not necessary to consider this disputed evidence in ruling on the motions for summary judgment.

From the parties' proposed findings of fact, I find the following facts to be undisputed.

UNDISPUTED FACTS

A. Background

Plaintiffs Ultratec, Inc. and CapTel, Inc. are Wisconsin corporations with their principal places of business in Madison, Wisconsin. Defendant Sorenson Communications, Inc. is a Utah corporation with its principal place of business in Salt Lake City, Utah. Defendant CaptionCall, LLC is a Delaware limited liability company with its principal place of business in Salt Lake City, Utah.

Telecommunications relay service (also referred to as "TRS" or "relay service") is a group of call center based services that make it possible for those who are deaf, hard-of-hearing or speech impaired to communicate with others via telecommunications. Title IV of the Americans with Disabilities Act of 1990 mandated relay service for all of the United States and its territories.

Traditional relay service began as, and remains, a fairly simple telephone service that allows persons with hearing or speech disabilities to place and receive telephone calls. The call may be originated by an assisted user or an unassisted user, such as one who is hearing. In traditional relay service, the call originator dials a toll-free telephone number and is connected to the relay. The call originator then provides the phone number of the other user to the call assistant, who places the call from the relay to the call recipient. The call assistant

and hearing user communicate through voiced communication using a headset that contains one or more speakers and a microphone. The call assistant listens to the voice of the hearing user and types verbatim the words of the hearing user to the assisted user. The assisted user responds to what she or he has read by typing a response and transmitting the typed response to the call assistant, who reads the text displayed on the call assistant workstation display screen and, in turn, voices the information verbatim to the hearing user.

However, many hard-of-hearing users and some deaf users have the ability to speak their end of the conversation, and prefer to do so. This is especially true of those who have lost hearing later in life after they had developed the ability to speak clearly (such as the elderly) and those who have developed clear speech through education and training. Voice carry-over technology permits the assisted user to speak to the hearing user with a call assistant interjected into the call to type words to the hard-of-hearing user. Around 2001, plaintiffs demonstrated and implemented a service called captioned telephone or “CapTel,” which allows a hard-of-hearing user and a hearing user to communicate with each other using their speaking voices. CapTel is directed to hard-of-hearing users who can speak but may not have enough residual hearing to clearly understand all of the words in a conversation. In CapTel service, the call assistant is involved in the call solely for the purpose of providing a text message stream, which the parties refer to as “captions,” of the words spoken by the hearing user for the assisted user to receive with the audio from the hearing user. The call assistant repeats verbatim the words spoken by the hearing user into a microphone that is connected to the computer workstation executing speech recognition software that the call

assistant has trained to his or her voice. (The parties refer to this as “revoicing” the words.) In traditional relays, call assistants were typing approximately 60 to 80 words per minute. Transcription by revoicing occurs at rates of 125 to 200 words per minute.

Every state in the United States contracts with a vendor to provide relay services to the deaf and hard-of-hearing community. Contracts requiring captioned telephone service have been awarded to vendors using the CapTel technology from Ultratec. CapTel technology uses telephones made and sold by Ultratec.

B. Patents Asserted by Plaintiffs

1. The ‘482, ‘314 and ‘346 patents

Ultratec owns United States Patents Nos. 5,909,482 (“the ‘482 Patent”), 6,233,314 (the ‘314 patent) and 6,594,346 (the ‘346 patent), all of which are entitled “Relay for Personal Interpreter” and list Robert M. Engelke as the named inventor. The ‘482 patent was filed on September 8, 1997 and issued on June 1, 1999; the ‘314 patent was filed on April 8, 1999 and issued on May 15, 2001; and the ‘346 patent was filed on February 14, 2001 and issued on July 15, 2003. The ‘346 patent is a continuation-in-part of the ‘314 patent, which is a continuation of the ‘482 patent. Both the ‘314 and ‘346 patents are entitled to the same 1997 priority date as the ‘482 patent.

The specification of the ‘482 patent states that it relates to a “relay system, and a method for operating a relay system, so as to provide more conversation-like performance

of voice to text interpreting for translating between deaf and hearing users.” ‘482 patent, col. 3, lns. 13-16. Asserted claim 1 of the ‘482 patent reads as follows:

1. A method of operating a relay system using a call assistant to facilitate communication between a deaf person and a hearing person by telephone comprising the steps of:

transmitting the voice of the hearing person when speaking to the ear of the call assistant;

the call assistant speaking in voice the same words that the call assistant hears spoken by the hearing person into a microphone connected to a digital computer;

the digital computer using voice recognition computer software trained to the voice of the call assistant to translate the words of the voice spoken by the call assistant into a digital text message stream containing the words spoken by the call assistant;

transmitting the digital text message stream created by the computer by telephone connection to a telecommunication device within sight of the deaf person; and

the telecommunication device displaying in visually readable text the words in the digital text message stream.

* * *

6. A method as claimed in claim 1 wherein there is a single telephone line of the telephone system used to communication [sic] between the call assistant and the hearing person and the call assistant and the deaf person, the digital text message stream and the voice of the hearing person both being transmitted over that single telephone line.

The ‘314 patent contains two claims:

1. A relay to facilitate communication between a deaf person using a telecommunication device for the deaf and a hearing person through a telephone system and using a call assistant, the relay comprising:

a speaker connected to receive voice communications from the telephone system and transmit those voice communications to the ear of the call assistant;

a microphone connected to pickup voice spoken by the call assistant;

a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream; and

a modem connected to the digital computer to transit [sic] the digital text stream created by the computer over the telephone system to the telecommunication device for the deaf of the deaf person [sic].

2. A relay to facilitate communication between a digital telecommunication device and a hearing person through a telephone system and using a call assistant, the relay comprising

a speaker connected to receive voice communications from the telephone system and transmit those voice communications to the ear of the call assistant;

a microphone connected to pick up voice spoken by the call assistant;

a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream; and

a modem connected to the digital computer to transit [sic] the digital text stream created by the computer over the telephone system to the telecommunication device.

Asserted claim 1 of the '346 patent reads:

1. A method of operating a relay system using a call assistant to facilitate communication between a hearing user and an assisted user by telephone, the hearing user speaking words in voice, the method comprising the steps of

transmitting the voice of the hearing user when speaking to the ear of the call assistant;

the call assistant speaking in voice the same words that the call assistant hears spoken by the hearing user into a microphone connected to a digital computer;

the digital computer using voice recognition computer software trained to the voice of the call assistant to translate the words of the voice spoken by the call assistant into a digital text message stream containing the words spoken by the call assistant;

transmitting both the digital text message stream and the voice of the hearing user by telephone connection to the assisted user;

displaying the digital text message stream to a captioned telephone display device within sight of the assisted person; and

transmitting the voice of the hearing user to the assisted user.

2. The '835 and '082 patents

Plaintiff Ultratec owns United States Patent Nos. 6,603,835 (the '835 patent) and 7,003,082 (the '082 patent), which are both entitled "System for Text Assisted Telephony" and list Robert M. Engelke and Kevin Colwell as the named inventors. The '835 patent was filed on August 23, 2001, published on July 4, 2002 and issued on August 5, 2003. It is a continuation-in-part of the '346 patent, which is a continuation-in-part of the '314 patent, which is a continuation of the '482 patent. The '082 patent was filed on August 5, 2003 and was issued on February 21, 2006. (The parties dispute whether the '082 patent is a continuation of the '835 patent because it was filed on the same day that the '835 patent was issued).

The '082 patent contains one apparatus claim directed to a "captioned telephone device" and reads as follows:

1. A captioned telephone device for providing captioned telephone service to an assisted user communicating with a hearing user through a telephone connection using a relay having speech to text translation capability, the hearing user speaking words in voice, the device comprising:

a microphone;

a speaker;

a visually readable display;

circuitry to support connection to two telephone lines; and

a microprocessor programmed to operate the device to:

receive a telephone call over a first telephone line directly between the assisted user and the hearing user;

initiate a telephone connection over a second telephone line to the relay;

transmit the voice of the hearing user over the second telephone line to the relay so that the relay can converting [sic] the words spoken by the hearing user into text and transmit the text created by the relay back to the device over a second telephone line; and

display the text on the display within sight of the assisted user such that captioning of the communication session is provided to the assisted user.

3. The '104 patent

Ultratec owns United States Patent No. 7,555,104 (the '104 patent), which is entitled "Relay for Personal Interpreter" and lists Robert M. Engelke as the named inventor. It was filed on February 24, 2006 and issued on June 30, 2009. The '104 patent is a continuation of United States Patent No. 7,006,604, which is a continuation of the '346

patent, which is a continuation-in-part of the '314 patent, which is a continuation of the '482 patent. Asserted claim 2 of the '104 patent reads:

2. A relay system using a call assistant for facilitating communication between a hearing user and an assisted user, the system comprising

a relay at the location of the call assistant, the relay including a personal computer with voice recognition software trained to the voice of the call assistant to translate the words spoken by the call assistant into a digital text stream containing the words spoken by the call assistant;

a captioned telephone device at the location of the assisted user and including a display visible to the assisted user; and

internet protocol connections between the hearing user and the relay and between the assisted user and the relay;

the system connected such that if the call assistant repeats the words spoken by the hearing user, the digital text stream created by the relay results in the words spoken by the hearing user appearing as text on the display of the captioned telephone device in the presence of the assisted user.

4. The '740 and '578 patents

Ultratec owns United States Patents Nos. 7,319,740 (the '740 patent) and 8,213,578 (the '578 patent), which are both entitled "System for Text Assisted Telephony" and list Robert M. Engelke and Kevin Colwell as the named inventors. The '740 patent was filed on October 25, 2005 and issued on January 15, 2008, and the '578 patent was filed on December 13, 2007 and issued on July 3, 2012. (Plaintiffs claim that the '578 patent is a continuation of the '740 patent, which is a continuation of the '082 patent, which is a continuation of the '835 patent, which is a continuation-in-part of the '346 patent, which

is a continuation-in-part of the '314 patent, which is a continuation of the '482. Defendants contend that the '740 patent and the '578 patent are entitled to claim priority to the filing date of the '835 patent because the application for the '082 patent was not filed before the issuance of the '835 patent.)

Asserted claims 7 and 8 of the '578 patent read as follows:

7. A method of operating a captioned telephone service, the method comprising the steps of:

providing words spoken by a remote user to a relay;

at the relay, a call assistant listening to the words spoken by the remote user and re-voicing the words into a computer with voice recognition software trained to the voice of the call assistant to create a text stream of the words spoken by the remote user; and

presenting the text stream to an assisted user via a display.

8. The method of claim 7 wherein the step of providing words spoken by a remote user to a relay includes the steps of receiving the words spoken at a captioned telephone device and transmitting the words spoken from the captioned telephone device to the relay via one of a cellular connection and a wireless data connection.

C. The Accused Products

Plaintiffs have accused CaptionCall's captioned telephone service and the products and systems used as part of that service of infringing the patents-in-suit. CaptionCall is "a mechanism of offering a telephone captioning service to people with hearing loss" and uses a CaptionCall phone. There are two models of the CaptionCall phone—the CaptionCall Model 57T and the CaptionCall Model 57Tx—that operate in the same manner and run on

the same software. With the exception of differences “related to the TouchScreen and LCD,” both models have largely the same hardware design.

CaptionCall service allows the call assistant to create captionings of a hearing user’s voice and send those captions to an assisted user’s device. The deaf or hard-of-hearing user places or receives calls over a standard telephone line, giving him or her the opportunity to hear the voice of the hearing person on the other end. The CaptionCall phone is connected to a CaptionCall call center through an internet protocol connection. During a call, the CaptionCall phone sends the hearing person’s voice to the CaptionCall call center and ultimately to a call assistant, who re-voices verbatim the words of the hearing user. The CaptionCall call assistant’s re-voiced words pass through a voice recognition application on the call assistant’s computer. The voice recognition application on the call assistant’s computer interprets the call assistant’s re-voiced words and outputs that interpretation as a text stream to the call assistant’s display screen and back to the deaf or hard-of-hearing user’s CaptionCall phone. In other words, in the accused service, the hearing user and assisted user are connected directly over the first or primary telephone line and the assisted user’s phone is connected to the call assistant over a secondary internet protocol connection.

D. Defendants’ Knowledge of Ultratec Patents

Defendants’ key managerial employees knew of Ultratec’s patents relevant to captioned telephone service at least as early as 2006. Robert Puzey, the product manager for CaptionCall service at the time, learned in January 2006 that the telecommunications

company MCI was opposed to any Federal Communications Commission rule mandating internet protocol captioned telephone service (IP CTS) on the ground that Ultratec held “the exclusive rights to the technology necessary to provide this service.” Puzey, in turn, forwarded this information to Sorenson’s chief executive officer, Pat Nola, and other higher executives in January 2006. Puzey’s email included a list, by number and title, of 86 Ultratec patents and 22 patent applications. In his email, Puzey wrote:

[D]oes MCI know something that we don’t? Does Ultratec have patents in place that would cause CapIP [the name given to CaptionCall at the time] grief? If we call it IP Relay with VCO [voice carry over] and use re-voicing with speech to text in our call center, I imagine that prior art would invalidate any process patents – but is our patent attorney familiar with potential conflicts? Perhaps MCI is referring to the CapTel phone itself which we don’t intend to use. Do we have a friendly contact at MCI that I can call regarding their concerns?

A few months later, in June 2006, Puzey prepared a “Product Requirements Document” that addressed the use of automatic speech recognition technology in speech to text transcription. Puzey stated that, at that time, “the sole means of speech to text transcription for [Sorenson’s communication assistants] CAs was typing,” and went on to explain the advantages of automatic speech recognition technology over typing. Puzey explained how the process would work, and suggested that it “was similar to the current CA [communication assistant] process used by CapTel.” Puzey attached to his document a 2002 National Association of State Chief Information Officers award nomination for the State of Wisconsin’s technology trial of two products, Fastran and CapTel, which were noted to have been “developed by Ultratec, Inc.” The award nomination described Ultratec’s voice recognition system in detail,

including that “the voice recognition computer is trained to just one voice, the communication assistant’s (CA) and not for all the different voices involved in relay calls.” Dkt. 150, exh. 5.

Puzey testified that as product manager, it was his job to assess the competitive landscape and to disseminate that information internally at Sorenson. According to Puzey, he devoted significant effort to that task, looking “under every stone to understand the competitive situation.” On August 18, 2006, Puzey forwarded to Nola and other Sorenson executives an email from Ed Bosson, a member of a “RelayAlert” Yahoo group, in which Bosson noted that “Ultratec has a vertical monopoly on this [captioned telephone] product and service thus as of now has absolute control of the product and service—protected by quite a few patents for the product and service.” Puzey wrote:

Ed Bosson sees the volume potential of captioned telephone. I ask the question again (see attached e-mail from Jan 12) about Ultratec’s patent portfolio related to captioned telephone services. Are there landmines here?

Dkt. #92, exh. 100.

Nola testified that although he did not recall having received Puzey’s emails, he was aware before this lawsuit was filed that plaintiffs had patents in the captioned telephone service arena. He denied having read them or investigated them or instructing anyone else to do so. Nola also testified that he was not concerned about the patents. Puzey offered similar testimony, stating that “[i]t was a policy at Sorenson to spend [their] time innovating on the best solution to customer products, not to spend [their] time endlessly studying patents.” Joseph Romriell, Sorenson’s director of engineering, also testified that Sorenson’s employees were not concerned about Ultratec’s patents because Sorenson was focused on innovation.

In 2009, defendants retained Sprout Marketing to conduct market research related to CaptionCall, which was still in development. In June 2009, Sprout presented its analysis. It identified two competitors in the captioned telephone space: plaintiffs Ultratec and CapTel. Sprout noted that these companies had “numerous patents,” in addition to the “latest in Computerized Voice Recognition Innovation.” Dkt. #150, exh. 29, at 18. In May 2010, Sprout provided another set of market findings, in which it identified the following problems for CaptionCall’s entry into the market:

- **CapTel’s Partners—Distinctive Competence:** CapTel Inc, the relay provider, Weitbrecht Inc. the CapTel equipment provider, Ultratec, the CapTel manufacturer hold all patents on this service . . .
- **CapTel Caption Service/Technology Patents – Distinctive Competence:** Ultratec has protected its work and investment that went into the invention of its “CapTel” version of captioned telephone technology . . .

Dkt. #150, exh. 4, at 4.

Sprout determined that the next step for Sorenson was to “understand CaptionCall technology and possible patents and how CapTel patents impact, relate and differentiate to CaptionCall product and captioning service.”

In 2005, Sorenson purchased a CapTel phone as part of a research effort focused on a “CapTel type of service.” Sorenson has since acquired several other CapTel phones.

E. Inter Partes Review Proceedings

Plaintiffs filed the instant lawsuit on May 17, 2013. On the same day, they filed a petition with the Patent Trial and Appeal Board for *inter partes* review of every claim of defendants’ ‘801 patent related to text caption error correction. On November 13, 2013,

the board granted plaintiffs' petition and instituted *inter partes* review of all claims of the '801 patent.

In August 2013, defendants filed a petition for *inter partes* review of all of the patent claims asserted by plaintiffs. On March 5, 2014, the board granted the petition and instituted review proceedings on all but claims 6 and 8 of the '835 patent. The board has not yet issued a final decision on any of the petitions.

OPINION

I. MOTIONS TO STRIKE

A. Plaintiffs' Motion to Strike Defendants' Cross Motion for Summary Judgment

Although defendants did not file a summary judgment motion with respect to direct infringement or invalidity of the Ultratec patents, they state in their response to plaintiffs' motion that they are "cross-mov[ing] for summary judgment" on the issues of non-infringement and anticipation. Dkt. #148 at 49, 110. Plaintiffs point out correctly that defendants' cross motions are untimely because they were filed after the deadline for filing dispositive motions in this case. Dkt. #165. Defendants explain that Fed. R. Civ. P. Rule 56(f)(1) gives the court discretion to grant summary judgment in favor of a nonmovant and that their response brief "simply asks the Court to take that action, which is not inconsistent with the dispositive motion deadline in the Court's scheduling order." Although the court does have this discretion, I am not going to exercise it in this case. Accordingly, I am granting plaintiffs' motion to strike.

B. Plaintiffs' Motion to Strike Undisclosed Opinions of Benedict Occhiogrosso

Plaintiffs have filed a motion to strike the May 12, 2014 declaration of defendants' invalidity expert, Benedict Occhiogrosso, dkt. #149, and portions of Occhiogrosso's May 9, 2014 deposition testimony, dkt. #173 at 347-60, as untimely and improper supplements to his February 12, 2014 expert report. Dkt. #178. It is unnecessary to resolve this motion for the purposes of summary judgment because I have not considered any of the proposed findings of fact or responses to proposed findings of fact that rely on the disputed evidence. Although plaintiffs may renew their motion if defendants seek to rely on such testimony at trial, they should be prepared to discuss why Occhiogrosso's deposition testimony regarding enablement should not be admitted after they opened the door by asking Occhiogrosso about this topic at his deposition.

C. Defendants' Motion to Strike Declaration of Kevin Colwell

Along with their reply brief on summary judgment, plaintiffs submitted the May 22, 2014 declaration of Kevin Colwell, the vice president of engineering at Ultratec, who discusses how the inventor of the '482 patent, Rob Engelke, got the idea for "fast transcription" (also known as Fastran) and how CapTel call centers receive and process incoming calls. Dkt. #184. Defendants have moved to strike the declaration because plaintiffs submitted it in support of additional facts included in reply to defendants' response to plaintiffs' proposed findings of fact. Defendants have not had an opportunity to respond to these new facts. Although defendants raise a good point, it is unnecessary to resolve this

motion because plaintiffs' additional proposed findings of fact that rely on the declaration are not relevant to my rulings on the motions for summary judgment.

D. Defendants' Opposition to Ludwick's Opinion on Voice Recognition Software

Defendants object to several of plaintiffs' proposed findings of fact based on Ludwick's deposition testimony, saying that Ludwick is not qualified to provide expert opinion evidence on speech recognition under Fed. R. Evid. 702. E.g., Dfts.' Resp. to Plts.' PFOF Nos. 478-531, dkt. #209. Defendants point out that Ludwick admitted in his deposition testimony that he would not consider himself an expert in speech recognition software. They also argue that his opinion about whether computer hardware could support continuous speech recognition in 1994, dkt. #92, exh. 32 at 8-11, is based on internet research for which he has no citation or evidentiary support.

Defendants have included a challenge to the qualifications of plaintiffs' expert in their response brief and in various responses to plaintiffs' proposed findings of fact. The proper way to raise such a challenge is by filing a separately briefed motion pursuant to Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993). Defendants' "mini Daubert motion" is insufficient to raise this issue before the court. Not only is it unclear exactly what aspects of Ludwick's opinion defendants are trying to exclude, but the parties have not had sufficient opportunity to brief the relevant issues for the court. As a result, I have not considered this argument and will not strike Ludwick's opinion evidence concerning the state of the art of speech recognition software in 1994. (In any event, as explained in the

subsequent discussion of invalidity, Ludwick’s opinion is not dispositive of any issue on summary judgment and is of questionable relevance to plaintiffs’ nonanticipation arguments.)

II. PLAINTIFFS’ MOTION FOR PARTIAL SUMMARY JUDGMENT

A. Claims Construction

Construing the meaning of disputed patent claims is the first step in determining whether defendants have infringed the patents-in-suit and whether the patents-in-suit are invalid because they are anticipated by prior art. The construction of claims is considered a matter of law and entrusted to the court. Markman v. Westview Instruments, Inc., 517 U.S. 370, 387(1996). In this case, the parties dispute the meaning of several terms that appear in the patents asserted by plaintiffs. However, only the following terms are relevant to the parties’ disputes with respect to infringement or invalidity.

1. The “telephone” terms

The parties dispute the following three terms related to the mode of transmission of the hearing user’s voice and the text transcription of the hearing user’s voice: “telephone line” (disclosed in the ‘482 and ‘082 patents), “telephone connection” (disclosed in the ‘482, ‘082 and ‘346 patents) and “telephone system” (disclosed in the ‘314 patent). The crux of the parties’ dispute is whether the term “telephone” encompasses an internet protocol (IP)

digital connection as well as what is known as “plain old telephone service” (POTS) in the earlier-filed ‘482 patent and ‘314 patents.

Defendants rely on Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005), for the proposition that the literal scope of a claim term is limited to what one of ordinary skill in the art would have understood the term to mean at the time of the patent’s effective filing date. Citing changes in telephone and communication technology between 1997 and 2001, defendants argue that the terms in the ‘482 patent (filed in 1997) and ‘314 patent (filed in 1999) should have a different meaning from that of the same terms in the ‘346, ‘835 and ‘082 patents (filed between 2001 and 2003). They contend that telephones have moved from circuit-based, switched networks in 1997 to packet-based, internet protocol networks in the early 2000s. According to defendants’ expert, Occhiogrosso, voice over internet protocol (VoIP) grew dramatically from 1998, when only 1% of the calls were VoIP, to 2003 where VoIP calls constituted nearly 25% of all domestic calls. Dkt. #135 at ¶ 58. From this, defendants argue that the court must find that the earlier ‘482 and ‘314 patents are directed specifically to telephone communication technology and not to communication technology in general.

Relying on language describing an embodiment in the shared specification of the ‘482 and ‘314 patents, defendants propose that the telephone terms mean “an actual physical telephone land line, or two pair [sic] between the telephones, or can be a cellular or other type of over-the-air telephone linkage.” Col. 5, lns. 15-18. Because the specifications of the more recently filed ‘346, ‘835 and ‘082 patents added “internet protocol digital connection”

to the list of possible telephone modalities, e.g., ‘346 patent, col. 5, lns. 60-63, defendants argue that the term acquired a broader meaning that cannot be imported into the earlier patents. Go Medical Industries Party, Ltd. v. Inmed Corp., 471 F.3d 1264, 1270 (Fed. Cir. 2006) (new subject matter in continuation-in-part application does not receive benefit of earlier priority date of previously-filed application); Kopykake Enterprises, Inc. v. Lucks Co., 264 F.3d 1377, 1383 (Fed. Cir. 2001) (when claim term understood to retain narrow meaning when application filed later acquires broader definition, scope of term is limited to what was understood at time of filing).

Plaintiffs argue that it is not the type of connection, but the connection’s capability, that is important. To that end, plaintiffs propose that for all the patents-in-suit, “telephone line” means “a communications line capable of carrying voice and/or data,” “telephone connection” means “a communications connection capable of transmitting and receiving voice and/or data” and “telephone system” means “a communications system capable of transmitting and receiving voice and/or data.”

The inclusion of the term “internet protocol connection” in the specifications of the ‘346, ‘835 and ‘082 patents reflects the fact that internet protocol connections had become a more common form of telephone communication by the early 2000s. However, the patentee’s failure to mention this technology in the specification of the ‘482 and ‘314 patents does not necessarily mean that the term “telephone” in those patents cannot include internet protocol technology.

As plaintiffs argue, the Court of Appeals for the Federal Circuit has held that “[t]he law ‘does not require that an applicant describe in his specification every conceivable and possible future embodiment of his invention.’” SuperGuide Corp. v. DirecTV Enterprises, Inc., 358 F.3d 870, 879-80 (Fed. Cir. 2004) (quoting SRI International v. Matsushita Electric Corp. of America, 775 F.2d 1107, 1121 (Fed. Cir. 1985) and distinguishing Kopykake on the ground that specification in that case explicitly defined term “screen printing” as limited to “conventional” or then-existing technologies). See also Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1344 (Fed. Cir. 2001) (quoting same). In SuperGuide, 358 F.3d at 879-80, the court of appeals found that the term “regularly received television signal” did not exclude digital signals even though televisions received only analog signals at the time the patent was filed. The court pointed out that those skilled in the art knew that both formats could be used for video. It reasoned that the claim encompassed the newer technology because nothing in the intrinsic evidence limited the scope of the claim to analog signals. Id. See also Innogenetics, N.V. v. Abbott Laboratories, 512 F.3d 1363, 1371-72 (Fed. Cir. 2008) (“Our case law allows for after-arising technology to be captured within the literal scope of valid claims that are drafted broadly enough.”).

Defendants admit that internet protocol digital connections existed at the time of the filing of the ‘482 and ‘314 patents, even though they were not yet commonly used for telephone communications. Although defendants point out that the claims and the specification of the ‘482 and ‘314 patents talk repeatedly about “telephone” and not “communication” technology, nothing in the specification explicitly limits telephone

communication to conventional technologies. In fact, the specification language that defendants rely on states explicitly that there are different modes of telephone communication, including land line, cellular and “other” over-the-air linkages. Notably, this list of possible technologies is open-ended, indicating that the patentee did not intend to limit the telephone terms to any particular mode. Dealertrack, Inc. v. Huber, 674 F.3d 1315, 1322 (Fed. Cir. 2012) (“The disclosure of multiple examples does not necessarily mean that such list is exhaustive or that non-enumerated examples should be excluded.”); Prima Tek II, LLC v. Polypap, S.A.R.L., 318 F.3d 1143, 1151 (Fed. Cir. 2003) (“Varied use of a disputed term in the written description demonstrates the breadth of the term rather than providing a limited definition.”).

Further, it is clear from the patents and their specifications that the actual mode of telephone communication is not crucial to the invention. In fact, the later-filed ‘346 patent specification makes this point explicit:

It is to be understood, however, that a conventional telephone single line connection is only one example of a telephonic connection that can be used in this arrangement. Digital wireless connection, or PCS connection, or even internet protocol wired or wireless connection can be used to connect the relay to the assisted user. The digital or analog nature of the telephonic connection is not critical, the only criticality being that the connection is capable of transmitting voice and text simultaneously from the call assistant to that user.

Col. 9, lns. 30-36. I conclude that the use of the word “telephone” in the ‘482 and ‘314 patents does not exclude internet protocol connections.

2. The “telecommunication device” terms

The parties dispute the constructions of the term “telecommunication device,” which is disclosed in claim 1 of the ‘482 patent and claim 2 of the ‘314 patent, and the term “telecommunication device within sight of the deaf person,” which is disclosed in claim 1 of the ‘482 patent. Specifically, claim 1 of the ‘482 patent discloses the steps of “transmitting the digital text message stream . . . to a telecommunication device within sight of the deaf person” and “the telecommunication device displaying in visually readable text the words in the digital text message stream.” Claim 2 of the ‘314 patent discloses “a relay to facilitate communication between a digital telecommunication device and a hearing person” and the transmission of a digital text stream to the “telecommunication device.”

Defendants propose that both terms be defined as:

An electronic device consisting of a keyboard and a display as well as a specific type of modem to acoustically or directly couple to a telephone line so that character strings typed into the keyboard can be encoded and transmitted over the telephone line to be displayed on a remote telecommunication device.

They base their proposed construction on language from the Background of the Invention section in the shared specification of the ‘482 and ‘314 patents:

[T]here has been developed a system of telephone communication which has been principally used by the deaf community. That system makes use of a category of device known variously as a telecommunication device for the deaf (TDD), text telephone (TT) or teletype (TTY). Current TDDs are electronic devices consisting of a key board and a display as well as a specific type of modem, to acoustically or directly couple to the telephone line.

Col. 1, lns. 27-32. However, this language refers only to a “telecommunication device for the deaf,” which appears to be a specialized device commonly known as a “TDD.” (I note

that the parties also appear to dispute the term “telecommunication device for the deaf,” but I will not construe the term at this point because it is disclosed only in claim 1 of the ‘314 patent, which is not at issue on summary judgment.)

Both parties acknowledge that the specification does not provide a separate definition for the terms “telecommunication device” or “telecommunication device within sight of the deaf person.” Plaintiffs argue that these two terms be given their plain and ordinary meaning, or in the alternative, be defined as “a device for communication over a distance.” Defendants contend that these terms must refer either to a TDD or a personal interpreter (which they argue has the same features as a TDD) because those are the only devices discussed in the specification. For example, the specification discusses an embodiment that can operate with normal TDDs or with a personal interpreter. Col. 6, lns. 44-45. I note, however, that the specification states that the invention “can” operate with a TDD or a personal interpreter, not that it *must* operate with one of those types of devices. Further, the specification states that “current” or then existing TDDs have a keyboard and a modem, not that all telecommunication devices must have such features.

As plaintiffs point out, a claim is not limited to the embodiments disclosed in the specification. Thorner v. Sony Computer Entertainment America LLC, 669 F.3d 1362, 1366 (Fed. Cir. 2012) (“It is . . . not enough that the only embodiments, or all of the embodiments, contain a particular limitation. We do not read limitations from the specification into claims.”). Further, different claims within the ‘482 and ‘314 patents use different terms. Independent claim 7 of the ‘482 patent specifically discloses a TDD,

whereas claim 1 discloses only a telecommunication device. Similarly, claim 1 of the '314 patent uses the term TDD, but claim 2 uses the term telecommunication device. The fact that the patentees chose to use different terms in different claims of the same patent suggests that the terms have different meanings and that "telecommunication device" is a more general device that does not necessarily have the special features of a TDD or personal interpreter. Clearstream Wastewater Systems, Inc. v. Hydro-Action, Inc., 206 F.3d 1440, 1446 (Fed. Cir. 2000) ("Under the doctrine of claim differentiation, it is presumed that different words used in different claims result in a difference in meaning and scope for each of the claims."). If the patentee had intended claim 1 of the '482 patent and claim 2 of the '314 patent to recite a TDD or a personal interpreter, then it would have said so, as it did in claim 7 of the '482 patent and claim 1 of the '314 patent.

Defendants note that in prosecuting the '314 patent, the patentee added claim 2 as an amendment, noting that it was "identical in its technical limitations to the previously submitted" claim 1, "but merely is intended to be unambiguous that the claim encompasses the possibility that the remote person using the relay is not deaf." Dkt. #159, exh. #18 at 70. Defendants argue that the passage about identical technical limitations evidences the patentee's intent that a "telecommunication device" recited in the newly added claim 2 has the same structural limitations as the "telecommunication device for the deaf" in claim 1, but their argument is unconvincing. Although the claims recite technical limitations for the relay (including a speaker, microphone, digital computer and modem), they do not include any technical limitations with respect to the telecommunications device itself. The claims

use the term “telecommunication device” only to identify where the modem transmits the digital text stream created by the call assistant’s computer. Further, the patentee’s decision to have claim 2 encompass users who are not deaf suggests that the patentee did not intend the newly added term “telecommunication device” to mean the same thing as “telecommunication device for the deaf.”

Defendants also contend that the term “telecommunication device within sight of the deaf person” should be defined as a TDD. Although this term uses the word “deaf,” I agree with plaintiffs that the phrase “within sight of the deaf person” refers to the location of the telecommunication device and does not dictate a certain type of device.

In sum, I conclude that neither “telecommunication device” nor “telecommunication device within sight of the deaf person” should be defined as a TDD or personal interpreter and that neither device necessarily requires a keyboard, display and a specific type of modem. Because no party has argued that these terms require any further definition apart from being devices for telecommunication, they will retain their plain and ordinary meanings.

3. “Communication between”

The parties dispute the meaning of the term “communication between” in claim 6 of the ‘482 patent, which recites a “single telephone line of the telephone system used to communication [sic] between the call assistant and the hearing person and the call assistant and the deaf person, the digital text message stream and the voice of the hearing person both

being transmitted over that single telephone line.” The term also appears in claim 1 of the ‘482 patent, which recites a method “to facilitate communication between a deaf person and a hearing person.” Plaintiffs do not propose a construction of the term, but defendants contend that it means “a bi-directional exchange” or two-way communication.

In support of their argument, defendants cite language from the ‘482 patent specification that they say shows a requirement for bi-directional communication:

The present invention is directed toward a relay system . . . so as to provide more conversation-like performance . . . between deaf and hearing users.

Col. 3, lns. 13-16. I agree that the patent envisions two-way communication between the hearing and deaf user. However, nothing in the language cited by defendants states that “communication between” refers to bi-directional exchanges in all circumstances. Contrary to defendants’ assertion, claim 6 appears to envision one-way communication between the call assistant and the hearing person and between the call assistant and the deaf person because it expressly discloses that what is being communicated is the “voice of the hearing user” (a one-way communication between the hearing user and the call assistant) and the “digital text message stream” (a one-way communication between the call assistant and the deaf user).

In a peculiar argument, defendants attempt to explain that the ‘482 patent discloses a traditional relay in which there are two bi-directional exchanges: 1) the deaf user types to the call assistant and the call assistant transmits text back to the deaf user; and 2) the hearing user talks to the call assistant and the call assistant speaks the words typed by the deaf user back to the hearing person. Dkt. #148 at 37 (citing col. 5, lns. 58-64 and col. 6,

ln. 44 to col. 7, ln. 2). Although I agree that the cited specification language describes an embodiment involving a traditional relay set up, nothing in claims 1 and 6 of the ‘482 patent *requires* a traditional relay method and neither claim discloses a step in which the deaf user types words to the call assistant for revoicing to the hearing user.

Defendants also argue that the patentee knew how to draft claim language that required unidirectional exchange, using terms like “transmitting to” in claim 1 of the ‘482 patent. Although I agree that transmitting something to a person implies only a unidirectional exchange, this does not negate the fact that “communication between” could mean either one-way or two-way communication. In fact, as plaintiffs point out, the ‘482 patent specification makes clear that the invention “enables a degree of *two-way* communication between a deaf person and a hearing person.” Col. 2, lns. 34-36 (emphasis added). The inclusion of the adjective “two-way” suggests that the patentee envisioned the possibility that “communication between” also could be “one-way.”

In sum, although I agree that “communication between” may refer to a two-way or bi-directional exchange, such as between a hearing and deaf user, nothing in the claim language or specification requires that this always must be the case.

4. “Modem”

Plaintiffs propose that the term “modem” be defined as “a combination modulator and demodulator for converting information between a digital form and signals suitable for transmission over a line.” Defendants propose the following definition: “a combination

modulator and demodulator at each end of a telephone line to convert binary digital information into audio tone signals suitable for transmission over the line and vice versa.” The parties appear to agree that the term “modem” in claim 2 of the ‘314 patent refers to a combination modulator and demodulator for converting digital information to certain types of signals suitable for transmission over a telephone line. However, defendants contend that the modem must convert digital information to analog audio tone signals, whereas plaintiffs contend that there is no such limitation. (Although defendants’ proposed construction appears to include two modems, they have not argued this point and therefore have waived the issue.)

In support of their proposed definition, defendants cite dictionary definitions from 1994 and 1997 that define a modem as a combination modulator–demodulator that converts digital signals into analog signals. However, in reply, plaintiffs cite other dictionary references from 1996 and 1997 that suggest that modems more generally convert one type of signal or data into another type of signal or data. Pltfs’. Reply to Dfts’. Resp. to Pltfs.’ PFOF, dkt. #209 at ¶¶ 954-58. (The ‘314 patent was filed in 1999 and claims priority to the ‘482 patent that was filed in 1997.)

Defendants argue that the signals must be audio tone signals in the context of the ‘314 patent because both claims of the patent state that the modem transmits “the digital text stream created by the computer *over the telephone system* to the telecommunication device.” Relying on their previous claim construction argument that the “telephone” terms include only traditional telephone technologies and not internet protocol connections,

defendants argue that the text stream cannot be transmitted over a telephone line unless the modem uses audio signals. This argument is unpersuasive because I have construed the “telephone” terms as not being limited to traditional technologies. Therefore, the modem in a relay system using internet protocol connections would not have to convert the digital text stream into an audio signal. Further, as plaintiffs point out, the specification of the ‘314 patent makes clear that the signal output from the modem is not limited to either analog or audio tones. In discussing one embodiment, the specification teaches that “[t]he digital text stream would be turned into a *digital communication stream* by the modem and 46 and passed on to the telephone line 48 to a display. . .” Col. 6, lns. 57-60. Accordingly, I decline to construe the term “modem” to limit it to converting digital information into “audio tone signals.”

5. “Internet protocol connections between the hearing user and the relay and between the assisted user and the relay”

This claim term appears in claim 2 of the ‘104 patent. Defendants contend that the term requires at least two separate and distinct internet protocol connections—one between the hearing user and the relay and another between the assisted user and the relay. Plaintiffs argue that the term should be given its plain and ordinary meaning, or in the alternative, the definition of “an internet protocol connection existing as at least part of the signal path between the hearing user and the relay and the signal path between the assisted user and the relay.”

I agree with plaintiffs to the extent that nothing in the claim language requires at least two separate and distinct internet protocol connections. As plaintiffs point out, the specification contains an embodiment for a personal interpreter that has only one connection between it and the call assistant, and both the hearing user and assisted user are connected to the relay through this same connection. Although the claim uses the plural term “internet connections,” implying more than one, the term refers to the existence of a connection between both 1) the hearing user and the relay and 2) the assisted user and the relay. If those “connections” occur through only one line, the claim term is still met.

However, plaintiffs have failed to develop a convincing argument that the internet protocol connection can be merely a part of the signal path between the hearing user and the relay or the assisted user and the relay. The claim clearly states that there must be an internet connection—in other words a full connection—between the hearing user and the relay and between the assisted user and the relay. Because neither side’s proposed construction is correct or adds anything to the plain and ordinary meaning of the term, I will not adopt either proposed construction and rely on its plain meaning.

B. Direct Infringement

1. The ‘482 patent

In response to plaintiffs’ arguments that defendants infringe claim 1 of the ‘482 patent, defendants contend that their accused products and services do not meet the following elements: 1) a relay system; 2) telephone connection; 3) telecommunication

device; 4) telecommunication device within sight of a deaf person; and 5) the voice of the hearing person when speaking. With respect to dependent claim 6, defendants contend that their products and services do not meet the additional disclosed elements of 1) a single telephone line and 2) communication between the call assistant and the hearing person and the call assistant and the deaf person.

a. claim 1

1) “Relay system” element

Defendants contend that their accused products and services do not include a “relay system” as that term is used in the ‘482 patent. Relying on language appearing in the specification, they propose the following definition of “relay system”: “a system of voice to telecommunication device for the deaf communication in which a call assistant serves as a human intermediary between a hearing user and a deaf person.” Plaintiffs point out that defendants’ cited language appears in the Background of the Invention section of the patent specification in the midst of a discussion of traditional relay systems:

In the United States, telephone companies have set up a service referred to as a “relay.” A relay, as the term is used herein, refers to a system of voice to TDD communication in which an operator, referred to as a “call assistant,” serves as a human intermediary between a hearing user and a deaf person. Normally the call assistant wears a headset that communicates by voice with the hearing user and also has access to a TDD device which can communicate to the deaf user using a TDD appropriate protocol. In normal relay operations in the prior art, the call assistant types at a TDD keyboard with words which are voiced to her by the hearing user and then voices to the hearing user the words that the call assistant sees upon the display of his or her TDD. The call assistant serves, in essence, as an interpreting intermediary between the deaf

person and the hearing person to translate from voice to digital electronic forms of communication.

Col. 1, ln. 59 to col. 2, ln. 8. Plaintiffs argue that the “definition” in the background section does not apply to all relays, particularly that disclosed in the ‘482 patent, and propose that the term be given its plain and ordinary meaning. In the alternative, they contend that the term be defined broadly to encompass the invention disclosed in the patent: “a system for voice to assisted user device communication in which a call assistant serves as a human intermediary between a hearing user and an assisted user.”

After reviewing the parties’ arguments regarding infringement, I conclude that it is not necessary to define the term “relay system.” Under either proposed construction, the parties’ dispute relates only to what it means for the call assistant to be a human intermediary between a hearing user and a deaf user. Defendants’ sole argument with respect to noninfringement of the relay term is that the CaptionCall call assistant does not serve as a human intermediary between the hearing user and the deaf user because the call assistant is not connected to the primary call between the hearing user and assisted user. They point out that in their accused service, the assisted user of a CaptionCall phone is connected to the hearing user by a primary phone connection but the call assistant connects to the assisted user over a separate internet connection.

However, as plaintiffs argue, the specification does not define an “intermediary” and seems to use the term to refer to the call assistant’s role in facilitating the conversation and not his or her “direct connection” to the hearing and assisted users. For example, the specification teaches that the call assistant “serves, in essence, as an interpreting

intermediary between the deaf person and the hearing person to translate from voice to digital electronic forms of communication.” Although the specification uses the term “between,” there is no indication that the specification is referring to the physical location of the call assistant. Similarly, claim 1 of the ‘482 patent discloses only a “relay system using a call assistant to *facilitate* communication between a deaf person and a hearing person by telephone” and does not mention the term intermediary or identify where the call assistant must be located in relation to the hearing user and assisted user. Col. 2, lns. 4-9 (emphasis added). I conclude that in a “relay system,” the call assistant does not have to be connected directly to the primary call between the hearing user and assisted user.

Because defendants have not raised any other arguments putting into dispute plaintiffs’ contentions that defendants infringe the relay element in claims 1 and 6, plaintiffs are entitled to summary judgment on this issue.

2) “Telephone connection” element

Defendants contend that their products and services do not “transmit digital text stream . . . by telephone connection” because their Model 57T connects to the CaptionCall call center using an internet protocol connection instead of a telephone connection. Because I have determined that the term “telephone connection” does not exclude the use of an internet protocol connection, I find that defendants have infringed this element of the claim.

3) “Telecommunication device” element

Defendants’ only argument with respect to this element is that the Model 57T does not have a keyboard and uses a network interface card to connect to the internet instead of a modem. However, because I have determined that the term “telecommunication device” does not require such features, their argument is moot.

Defendants also state that rather than solely receiving text from the relay, users of the Model 57T can hear the voice of the hearing user. However, they have not developed this argument or explained why the Model 57T would not infringe this element of claim 1 if it both receives text and the voice of the hearing user. Even though claim 1 requires “transmitting the digital text stream . . . to a telecommunication device,” it does not follow that the telecommunication device cannot receive the voice of the hearing user as well. I conclude that plaintiffs are entitled to summary judgment with respect to infringement of this claim element.

4) “Within sight of the deaf person” element

In its recent decision in Limelight, 134 S. Ct. at 2117-18, the United States Supreme Court made clear that a defendant cannot be held liable for infringing or inducing infringement of a method claim if no single entity has performed all of the steps of the claim. In other words, plaintiffs may not proceed under a theory of joint or “divided” infringement, which occurs in situations in which no single actor performs every step in a method claim. Thus, with respect to the “within sight of the deaf person” element, defendants argue that

plaintiffs cannot establish direct infringement without showing that defendants actually place the telecommunication device within the sight of the deaf user. However, as plaintiffs point out, the claim language states only that the infringer *transmits* the text stream to the telecommunication device; it says nothing about performing the separate action of placing or moving the device. The phrase “within sight of the deaf person” merely describes the location of the device and does not require any action.

Defendants argue that even if no express action is recited with respect to the location of the device, the deaf person—a third party—must look at the device for it to be “within sight.” I agree that the preamble to the claim contemplates communication between a deaf person and a hearing person and that the claim language assumes that the deaf person is looking at the telecommunication device when the telephone communication commences. However, it does not necessarily follow that because the deaf person must take the action of looking at the device, defendants are not infringing this element of the claim. Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292, 1309 (Fed. Cir. 2011) (“That other parties are necessary to complete the environment in which the claimed element functions does not necessarily divide the [responsibility for the] infringement between the necessary parties.”).

In this case, the recited method steps begin with the transmission of the voice of the hearing person to the call assistant. After the infringer performs the other steps and transmits the text stream to the telecommunication device, it is the device that displays or puts the text within the sight of the deaf person. In other words, the telecommunication device is necessarily within the sight of the deaf person when the steps of the method are

performed. Therefore, even though claim 1 may contemplate the involvement of other parties at some point in the telephone communication, all of the steps in the disclosed method focus on transcribing the spoken words into text that is transmitted to the telecommunication device. Level 3 Communications LLC v. Limelight Networks, Inc., 630 F. Supp. 2d 654, 659-60 (E.D. Va. 2008) (although preamble described system that assumed existence of external elements, clients did not play any role in method step of “obtaining a client request for information” and therefore were not directly implicated in determining whether infringer performed method steps). As a result, the method claim in the ‘482 patent is structured to capture the conduct of only a single party. Uniloc, 632 F.3d at 1309 (finding plaintiff captured infringement by one party by focusing on action of one entity); Level 3 Communications, 630 F. Supp. 2d at 661 (finding same where actual steps constituting methods did not involve actions by multiple parties).

In sum, because I find that plaintiffs do not have to show that any party “places” the telecommunication device within the sight of the deaf user, they are entitled to summary judgment with respect to this claim element.

5) “Voice of hearing person when speaking” element

Claim 1 of the ‘482 patent recites the method step of “transmitting the voice of the hearing person when speaking to the ear of the call assistant.” In an argument similar to the one in the preceding section, defendants contend that they do not infringe this element

because they do not perform the necessary predicate step of “generating” the words of the hearing user.

As plaintiffs point out, the claim requires only that the infringer “transmit,” and not “generate,” the hearing person’s words. Although the claim anticipates that the hearing user will speak, it does not require the hearing user to complete any of the recited steps of the method. SiRF Technology, Inc. v. International Trade Commission, 601 F.3d 1319, 1330-31 (Fed. Cir. 2010) (declining to read limitation related to “activating” or “enabling” into method claim reciting “processing satellite signals at the mobile receiver” where end user needed to activate software and enable device before processing could occur); Level 3 Communications, 630 F. Supp. 2d at 659 (because clients did not play any role in method step of “obtaining a client request for information,” they were not directly implicated in determining whether infringer performed method steps); Kenexa Brassring, Inc. v. Taleo Corp., 751 F. Supp. 2d 735, 751 (D. Del. 2010) (fact that third party user uploaded resumes in first instance did not relieve defendant of responsibility for infringement of claim directed to software system on server that supplies resume stream to second server). In claim 1, the performance of the method steps occurs only after the hearing user has spoken. Kenexa, 751 F. Supp. 2d at 751 (noting same). As a result, there is no potentially infringing act by a third party. Id. (simple user involvement not enough to give rise to divided infringement). Accordingly, plaintiffs are entitled to summary judgment with respect to infringement of this element.

b. claim 6

In addition to the arguments made with respect to claim 1, defendants argue that their products and services do not include the additional elements of a “single telephone line” for “communication between” the call assistant and the hearing person and the call assistant and the deaf person. As with claim 1, defendants say that their products and services contain an internet protocol connection and not a “telephone line.” However, this argument fails because I have determined that the term “telephone line” may include an internet protocol connection.

Defendants also argue that there is no “communication between” their CaptionCall center and the hearing person because the call assistant does not communicate back to the hearing user after receiving the voice of the hearing user. This argument fails because I have determined that the term “communication between” does not require a bidirectional exchange.

Finally, defendants contend that plaintiffs fail to identify in defendants’ products and services a single telephone line between the call assistant and the hearing person. According to defendants, there are two connections between their CaptionCall center and the hearing user because the hearing user’s voice travels 1) to the deaf user’s Model 57T via a telephone line and then 2) to the CaptionCall center over an internet protocol connection. Plaintiffs contend that the “claim does not limit the number of telephone lines available in the system” as long as there is only one line that carries both the call assistant-hearing user communication and the call assistant-deaf user communication. Dkt. #121 at 75. They

point out that the internet protocol connection between the deaf user's Model 57T and the CaptionCall center transmits both the hearing user's voice to the call assistant and the text captions to the deaf user.

Plaintiffs are correct that nothing in the claim language prevents the use of a second connection as long as the other elements of the claim are met. However, they have failed to show that there is a single line of communication between defendants' call assistant and the hearing user. Defendants have created an issue of fact with respect to this issue by showing that the allegedly infringing communication between the hearing user and the call assistant, that is, the call assistant's receipt of the hearing user's voice, occurs over two communication links. Accordingly, plaintiffs' motion for summary judgment will be denied with respect to claim 6.

2. The '314 patent

In addition to the arguments made with respect to the "relay," "telephone line" and "telecommunication device" elements of the '482 patent, defendants contend that their products and services do not infringe the additional requirement for a "modem" in claim 2 of the '314 patent.

The parties rely on their experts' reports in arguing whether defendants' CaptionCall service contains the modem disclosed in the '314 patent. Plaintiffs cite Ludwick's supplemental infringement report for the proposition that CaptionCall centers use servers or other network equipment connected through an interface or service panel to establish an

internet protocol connection. Dkt. #121 at 76-77. According to Ludwick, these interfaces constitute modems either literally or under the doctrine of equivalents. Id. at 77. However, as explained in this court's previous order denying defendants' motion to strike Ludwick's supplemental infringement report, in his original expert report, Ludwick stated simply that he had viewed a "modem connected to the digital computer" in defendants' CaptionCall center. July 17, 2014 Order, dkt. #286 at 3. Subsequently, defendants' expert, Occhiogrosso, offered the rebuttal opinion that CaptionCall uses a network interface card and not a modem to connect to a local area network. Dkt. #92, exh. 39 at 37. Ludwick then explained in his supplemental report that although this is true, the local area network is connected to the internet via a modem or its substantial equivalent. Dkt. #100 at 51. He went on to include a detailed description and two photographs of defendants' network equipment. Id. at 51-54. Finding that Ludwick added substantial detail to his earlier opinion but that no prejudice had resulted, I allowed Occhiogrosso to supplement his report.

Because the parties dispute whether defendants' service contains a modem or the equivalent of a modem and because they did not have the benefit of all of the relevant expert opinions at the time of briefing the motion for summary judgment, the question whether defendants' products and services infringe the modem element of the '314 patent must proceed to trial.

3. The '104 patent

In addition to the arguments made with respect to the elements related to “relay” and the hearing user’s words in the ‘482 patent, defendants contend that their products and services do not infringe the additional requirement for “internet protocol connections between the hearing user and the relay and between the assisted user and the relay” in claim 2 of the ‘104 patent. They argue that with CaptionCall, the hearing user is connected to the deaf user only through a primary telephone connection and is not directly connected to the relay via an internet protocol connection. (In defendants’ system, only the deaf user’s phone has an internet protocol connection to the relay. Although the hearing user’s voice is carried over this internet protocol connection, it must first travel over the telephone connection between the hearing and deaf users.) Plaintiffs argue that even though the hearing person’s voice travels over a telephone connection initially, it still travels over an internet protocol connection as part of its path to the relay and therefore infringes this claim element. However, because I have determined in the context of claim construction that it is insufficient for the internet protocol connection to merely be “part of the signal path,” I find that plaintiffs have failed to establish literal infringement of this element as a matter of law.

Plaintiffs also contend that defendants infringe this limitation under the doctrine of equivalents under which a product that does not practice a claim limitation may still infringe if 1) the differences “can be fairly characterized as an insubstantial change from the claimed subject matter without rendering the pertinent limitation meaningless,” Freedman Seating Co. v. American Seating Co., 420 F.3d 1350, 1359 (Fed. Cir. 2005), or 2) “the accused

device performs substantially the same function in substantially the same way to obtain the same result as the claim limitation.” Catalina Marketing International, Inc. v. Coolsavings.com, Inc., 289 F.3d 801, 813 (Fed. Cir. 2002) (quotation omitted). “The test of the equivalence of a proposed substitute for a missing element is ordinarily a factual inquiry reserved for the finder of fact.” Deere & Co. v. Bush Hog, LLC, 703 F.3d 1349, 1356 (Fed. Cir. 2012).

Plaintiffs state summarily that a “single IP connection serves the same function as separate and distinct IP connections: sending the hearing user’s voice to the relay and receiving in return a text transcription of the hearing user’s voice.” Dkt. #121 at 83. Although this may be true, their argument focuses on defendants’ proposed claim construction, which I have rejected, and therefore misses the mark. Plaintiffs have failed to show or even argue how the partial internet protocol connection between the hearing user and the relay in defendants’ CaptionCall service function in substantially the same way as the disclosed internet protocol connection. (Again, the path of communication between the hearing user and the relay in defendants’ service includes both a telephone connection and an internet protocol connection.) Although I have concluded that claim term “telephone connection” does not exclude an internet protocol connection, neither party has established whether an internet protocol connection is substantially the same as a telephone connection or that it functions in substantially the same way. Plaintiffs are not entitled to summary judgment with respect to their doctrine of equivalents argument.

4. The '578 patent

Defendants' only argument with respect to noninfringement of claims 7 and 8 of the '578 patent is that their products do not perform the step of "generating" the "words spoken by a remote user." For the reasons explained in conjunction with claim 1 of the '482 patent, claims 7 and 8 do not require that any party "generate" the words of the remote user. Both claims require only that the infringer "provide" the words to a relay. Because performance of the method steps in these claims occurs only after the hearing user has spoken, there is no divided infringement. Accordingly, plaintiffs are entitled to summary judgment with respect to infringement of claims 7 and 8 of the '578 patent.

5. The '082 patent

The parties' dispute with respect to infringement of the '082 patent relates solely to whether defendants' CaptionCall phone contains a "microprocessor programmed to operate the [captioned telephone] device to: . . . display the text on the display *within the sight of the assisted user. . .*," as disclosed in claim 1 of the '082 patent (emphasis added). Although defendants contend summarily that plaintiffs have not adduced any evidence that defendants' products contain this feature, they are incorrect. Plaintiffs cite the expert report of Ludwick, who states that defendants' documents demonstrate this feature in the Model 57T and that he also personally observed a microprocessor in the accused phone, which was arranged to display text within the sight of the assisted user.

As they argued with respect to the ‘482 patent, defendants contend that even if their accused phone is programmed to display text within the sight of the assisted user, they do not cause their customers to look at the Model 57T phone, an action required by the claim limitation. In support, defendants cite the report of their expert, Occhiogrosso, who explains that “[w]hile Defendants may provide the Model 57T to their customers, it is the actions of the assisted user that place the Model 57T within sight of the assisted user. If the assisted user is not looking at the Model 57T, these limitations are not met.” Dkt. #135 at 54, ¶¶ 179-80. (Although Occhiogrosso raised a similar argument with respect to the claim’s requirement for a microprocessor programmed to operate the device to transmit the voice of the hearing user, I have not considered it because defendants do not raise this issue in response to plaintiffs’ motion for summary judgment.)

However, as explained above, “within the sight of the assisted user” does not require any separate action on the part of the infringer. In the ‘082 patent, it merely describes a property of the claimed apparatus, specifically a characteristic of the display. Claim 1 is an apparatus claim that merely requires the claimed device to contain a microprocessor *programmed to* display the text in a certain manner. Unlike a method claim, this apparatus claim does not require the performance of an action. Baldwin Graphic Systems, Inc. v. Siebert, Inc., 512 F.3d 1338, 1344 (Fed. Cir. 2008) (finding district court impermissibly blurred elements of apparatus and method claims and noting “[c]ourts must generally take care to avoid reading process limitations into an apparatus claim”). See also Nassau Precision Casting Co., Inc. v. Acushnet Co., Inc., 2014 WL 2535260, *6 (Fed. Cir. June 6,

2014) (“A ‘method’ in a claim, one of the most common and basic terms of patent drafting, is a ‘process,’ and ‘method’ and ‘process’ have a clear, settled meaning: a set of actions, necessarily taken over time.”).

Because I have rejected defendants’ only argument in response to plaintiffs’ infringement claim, there is no genuine issue of material fact regarding infringement of the ‘082 patent. As a result, I find that plaintiffs are entitled to summary judgment with respect to defendants’ infringement of the ‘082 patent.

C. Invalidity

Plaintiffs have moved for summary judgment only with respect to defendants’ claims of anticipation with respect to Ultratec’s eight patents. (Defendants have not moved for summary judgment with respect to invalidity.) Patent claims are invalid as anticipated if “every limitation is found either expressly or inherently in a single prior art reference.” Celeritas Technologies v. Rockwell International Corp., 150 F.3d 1354, 1361 (Fed. Cir. 1998); 35 U.S.C. § 102. In addition, the reference must “enable one of ordinary skill in the art to make the invention without undue experimentation.” In re Gleave, 560 F.3d 1331, 1334 (Fed. Cir. 2009). Under 35 U.S.C. § 282, patents are presumed to be valid, and the burden of proving anticipation is on defendants, who must make their case with clear and convincing evidence. Microsoft Corp. v. i4i Ltd. Partnership, ___ U.S. ___, 131 S.Ct. 2238, 2242 (2011). Although anticipation generally is a question of fact, plaintiffs can obtain summary judgment of no anticipation by showing that no reasonable jury could find by clear

and convincing evidence that the claims-in-suit are invalid. Golden Bridge Technology, Inc. v. Nokia, Inc., 527 F.3d 1318, 1321 (Fed. Cir. 2008); Central Admixture Pharmacy Services, Inc. v. Advanced Cardiac Solutions, P.C., 482 F.3d 1347, 1357-58 (Fed. Cir. 2007) (affirming district court's grant of summary judgment of no invalidity where defendant "failed to meet its burden of coming forward with evidence to create a genuine dispute of fact" on invalidity issue).

Defendants alleged initially that several prior art references anticipated the patents-in-suit. However, in their response to plaintiffs' motion for summary judgment, they have abandoned all but three of those references, stating that they were not asserting them as anticipatory prior art. Dkt. #148 at 114. As a result, plaintiffs are entitled to judgment as a matter of law on all of defendants' anticipation counterclaims except for the following, which I will address below: 1) the '835 patent (Engelke '685) anticipates the asserted claims of the '082, '740 and '578 patents; 2) United States Patent No. 6,181,736 (McLaughlin) and United States Patent No. 5,982,853 (Liebermann) anticipate the '082 patent; and 3) United States Patent No. 5,809,112 (Ryan) anticipates claim 1 of the '482 patent, the '314 patent and claim 7 of the '578 patent. Although the parties dispute the skills and qualifications that would be possessed by one of ordinary skill in the art in the late 1990s and early 2000s, plaintiffs argue that even if defendants' invalidity expert, Occhiogrosso, qualifies as a person of ordinary skill in the art, he has not provided a valid explanation of how the elements of the asserted claims are disclosed in the prior art.

1. Engelke '685

The parties' dispute with respect to this reference centers on whether the '835 patent is the parent to the '082, '740 and '578 patents or whether it instead can be considered prior art to those patents. Defendants contend that the '082, '740 and '578 patents cannot claim priority to the earlier effective filing date of the '835 patent because the application for the '082 patent was not filed before the '835 patent was issued. In other words, defendants claim that the "chain of priority" was broken when the '082 patent application was filed. Plaintiffs argue that the '082 patent is a proper continuation of the '835 patent and is entitled to the same priority date as the '835 patent.

Under 35 U.S.C. § 120, a continuation application may be entitled to the priority date of a parent application "if filed before the patenting" of the parent application. This provision is known as the "copendency" requirement. In re Doyle, 293 F.3d 1355, 1363 (Fed. Cir. 2002). The '835 patent issued on August 5, 2003, the same day that the application for the '082 patent was filed. Defendants argue that because the '082 patent application was filed on the same day that the '835 patent was issued, the '082 application was not filed before the patenting of its parent application. As plaintiffs point out, this court rejected a similar argument in MOAEC, Inc. v. MusicIP Corp., 568 F. Supp. 2d 978, 981-82 (W.D. Wis. 2008), finding that the United States Patent and Trademark Office's Manual of Patent Examining Procedure interpreted "before" to mean "not later than." See also Molins PLC v. Textron, Inc., 48 F.3d 1172, 1180 n.10 (Fed. Cir. 1995) (MPEP "is entitled to judicial notice as an official interpretation of statutes or regulations as long as it is not in

conflict therewith.”). The Court of Appeals for the Seventh Circuit has not yet weighed in on this issue. Encyclopaedia Britannica, Inc. v. Alpine Electronics of America, Inc., 609 F.3d 1345, 1352 (Fed. Cir. 2010) (“We therefore leave for another day whether filing a continuation on the day the parent issues results in applications that are co-pending as required by the statute.”) Although defendants encourage me to overrule my holding in MOAEC, they have not presented any good reason for doing so that was not addressed and rejected that decision. Accordingly, I find that the ‘082 and ‘835 patent applications were copending, making the ‘082 patent a continuation of the ‘835 patent. Because defendants can not assert Engelke ‘685 as prior art to the ‘082, ‘740 and ‘578 patents, plaintiffs’ motion for summary judgment with respect to this reference will be granted.

2. McLaughlin

Plaintiffs contend that the McLaughlin reference does not anticipate claim 1 of the ‘082 patent because it does not disclose a “captioned telephone device” that: 1) enables an assisted user to receive both voice *and* captions; 2) has both a microphone and a speaker; 3) comprises “circuitry to support connection to two telephone lines”; and 4) has “a microprocessor programmed to operate the device to . . . initiate a telephone connection over a second telephone line to the relay.” Although neither side has proposed a construction of the term “captioned telephone device” that appears in the preamble to claim 1 of the ‘082 patent, they dispute whether the ‘082 patent requires the captioned telephone device to communicate both the voice of the hearing user *and* captions to the assisted user at the same

time. As a result, I will first address the claim construction issue and then discuss whether defendants have presented clear and convincing evidence that McLaughlin discloses the claim limitations identified by plaintiffs.

a. Construction of preamble to claim 1 of the '082 patent

The preamble to claim 1 reads: "A captioned telephone device for providing captioned telephone service to an assisted user communicating with a hearing user. . ."

Plaintiffs point out that the '082 patent and its parent, the '835 patent, share the same specification, which teaches

An arrangement for providing captioned telephone service is provided which permits persons who are hard of hearing to receive captioning of their telephone communications as they need it. A personal interpreter/captioned telephone device can dial a relay on a second telephone line while the assisted user if [sic] conversing with a hearing user over a first telephone line.

Abstract, '082 patent. The description of the invention in the specification makes clear that [t]his service is designed to supplement rather than replace the transmission of the spoken voice word to the assisted user." '082 patent, col. 3, lns. 22-24. Relying on the description, plaintiffs contend that claim 1 requires the disclosed device to convey both the voice of the hearing user *and* the captions to the assisted user.

Defendants argue that plaintiffs are ignoring an important distinction between method and apparatus claims. They point out that claim 1 of the '082 patent is an apparatus claim that discloses what a device is and not what it does. Hewlett-Packard Co. v. Bausch & Lomb, Inc., 909 F.2d 1464, 1468 (Fed. Cir. 1990). See also Baldwin Graphic

Systems, 512 F.3d at 1344 (“Courts must generally take care to avoid reading process limitations into an apparatus claim.”); Catalina Marketing International, Inc. v. Coolsavings.com, Inc., 289 F.3d 801, 809 (Fed. Cir. 2002) (“preambles describing the use of an invention generally do not limit the claims because the patentability of apparatus or composition claims depends on the claimed structure, not on the use or purpose of that structure”). Defendants contend that the mere fact that an assisted user is provided with the voice of the hearing user during captioned telephone service (as described in the specification to the ‘835 and ‘082 patents) in no way *requires* the captioned telephone device itself to provide both audio and captions to the assisted user. In support of their position, defendants point to various embodiments described in the specification of the ‘082 patent in which the captioned telephone device is separate and apart from the assisted user’s conventional telephone. E.g., Fig. 4 of ‘082 patent. In those embodiments, it is the conventional telephone and not the captioned telephone device that transmits the audio to the assisted user.

Defendants’ argument is persuasive. In discussing Fig. 4, the specification states that the captioned telephone device is constructed to accomplish two objectives:

One objective is to filter, or separate, the digital signals carrying the text information from the voice signal. The other objective is to take the digital signals and create a visual display of the text information for the assisted user. This device is thus intended to assist the user to understand a greater portion of the conversation by providing a visually readable transcription of the text of the telephone conversation. . . While the captioned telephone device 72 of FIG. 4 is illustrated as a stand-alone device from the telephone 70, those of skill in the art can readily appreciate that the two functions *can* be combined in a special capability telephone station. Such a special purpose station *can*

both provide conventional telephone service and also include a display which can be used to provide captioning for an assisted user.

Col. 9, lns. 7-32 (emphasis added). Therefore, although the preamble states that the captioned telephone device is “for providing captioned telephone service,” nothing in the ‘082 patent specification states that it must be the device itself that provides all aspects of the captioned telephone service. Catalina Marketing, 289 F.3d at 809 (preamble generally is not limiting when body of claim describes structurally complete invention such that deletion of preamble phrase does not affect structure or steps of claimed invention). In fact, the specification states that “[s]everal physical versions of the PICT [personal interpreter/captioned telephone device] are contemplated,” including a “stand-alone appliance inserted” between the assisted user’s telephone and telephone jack and a “single two-line unit” that provides both conventional and captioned telephone services. Col. 10, lns. 66-67 to col. 11, lns. 1-6. In other words, in captioned telephone service, the device can be a single, stand-alone unit or the device can be used in conjunction with a separate telephone.

Plaintiffs contend that because claim 1 of the ‘082 patent requires the device to include a microphone and speaker and circuitry to connect two telephone lines, it discloses only the stand-alone, two-line unit embodiment described in the specification. However, as defendants point out, even though the device must have a speaker, the claim does not require the speaker to transmit the hearing user’s voice to the assisted user; it is still possible that this function could be performed by a separate telephone. Similarly, the fact that the device must have “circuitry to support connection to two telephone lines” does not mean

that both lines must be used or that the device necessarily provides both conventional and captioned telephone service. For example, the specification describes an embodiment of a captioned telephone device, depicted in Figure 6, that connects to two telephone lines but that also uses a separate telephone to transmit the voice of the hearing user to the assisted user. Col. 10, lns. 17-54. Plaintiffs argue that in this embodiment and other two-line units, the captioned telephone device is providing audio to the assisted user because the voice of the hearing user passes through the device either directly or indirectly to a conventional telephone, where it is played to the user. However, neither the language of the specification nor the claim itself states that this is actually the way the two-line device works. Further, even in plaintiffs' argument it is the telephone and not the captioned telephone device that is conveying the hearing user's voice to the assisted user.

For these reasons, I find that claim 1 of the '082 patent does not require the captioned telephone device itself to convey both the voice of the hearing user and text to the assisted user. As a result, in order to prove anticipation of the '082 patent, defendants need not show that McLaughlin (or any other prior art) teaches a single captioned telephone device that provides both voice and captions to the assisted user.

b. McLaughlin disclosures

1) microphone and speaker

In support of their argument that McLaughlin does not disclose a device that has both a microphone and a speaker, plaintiffs rely on two different techniques discussed in the

reference: “voice carry over” and “hearing carry over.” Dkt. #92, exh. 20, col. 29, lns. 28-44. Plaintiffs reason that with voice carry over, a microphone is necessary because a deaf but speaking person can speak during a relay call and his or her voice is “bridged over” to the hearing person. However, plaintiffs argue that a speaker is not inherent in voice carry over because the deaf user is not receiving any audio. Conversely, plaintiffs reason that with hearing carry over, there is a speaker for the hearing but speech impaired person but no microphone because that type of user could not make use of one.

Defendants point out that McLaughlin does not say that one device is used for a deaf user, another device is used for a speech impaired user and yet a third device is used for a user who is both deaf and speech impaired. They note correctly that in several places, McLaughlin refers to the users of the answering system as “deaf and/or speech impaired users,” indicating that a single answering system works for deaf but speaking users and hearing but speech impaired users. This evidence is sufficient to support an inference that the device disclosed in McLaughlin has both a speaker and a microphone. Accordingly, I find that it is genuinely disputed whether McLaughlin discloses a device with both a microphone and a speaker.

2) circuitry to support connection to two telephone lines

Plaintiffs argue that although defendants point to the fact that one preferred embodiment in McLaughlin “comprises two voice capable SVD modems,” col. 32, lns. 14-19, defendants have failed to adduce evidence that the modems include circuitry to support

two telephone lines. However, as defendants note, McLaughlin teaches that “the deaf and/or speech impaired person will have two communication links *such as two phone lines* or access to two phone extensions.” Col. 30, lns. 46-48 (emphasis added). “One communication link, at least, should be capable of supporting simultaneous voice and data communications (“SVD”), such as by using an SVD modem . . .” Col. 30, lns. 53-56. McLaughlin goes on to explain that

[T]he communication link capable of SVD will be named ‘Line B,’ and the other link “Line A.” Line A will be the communication link on which the H/S [hearing/speaking] person initially calls the deaf and/or speech impaired person.

* * *

When an incoming call is received by Line A, the deaf and/or speech impaired person may decide that this line will handle one or several types of calls such as voice calls, data (text telephone) calls from TDDs or modems . . .

Col. 30, lns. 59-63 (emphasis added). Although McLaughlin does not mention “circuitry” specifically, defendants’ expert, Occhiogrosso, cites the following in support of his opinion that McLaughlin discloses “circuitry to support two telephone lines”:

Implementation of the above invention can be accomplished with custom hardware using analog multiplexors to bridge voice sounds from one phone line to the other. However, in one presently preferred embodiment the invention comprises two voice capable SVD modems which are commercially available.

Occhiogrosso Rep., App’x. H1, dkt. #216, exh. 8 at 2 (citing McLaughlin, col. 32, lns. 14-19). The fact that the invention can be implemented either with hardware using multiplexors or with two SVD modems supports an inference that McLaughlin discloses the necessary circuitry.

Plaintiffs also contend that defendants have failed to show that both modems or lines are housed in the device at the assisted user's location, as required by the '082 patent. However, defendants point out that McLaughlin discloses at least two embodiments in which the SVD modems are located in a single enclosure or attached to the same computer:

In one implementation of the above invention, two SVD modems are attached to a personal computer, and no specialized hardware is required.

In the following example, the first configuration has been attained so that the first SVD modem is on Line A to the voice caller and the second SVD modem is on Line B to the relay service.

* * *

When the voice caller speaks, the Line A SVD modem digitizes the sounds of this voice and ships this digital stream over to the Line B SVD modem, either directly in a single modem enclosure, through a bus, serial, or parallel ports of a personal computer, or over a LAN/WAN as discussed below. The sounds of the relay operator are digitized and sent on the SVD line B to the user's second SVD modem on line B.

Col. 32, lns. 33-35, 41-57. This language, coupled with the fact that the SVD modem attached to Line A answers the call and the SVD modem attached to Line B connects with the relay service and receives the digitized sounds of the relay operator, supports an inference that the lines and circuitry are all located at the assisted user's location. Further, McLaughlin states that the user has a "second SVD modem on line B," indicating that both SVD modems are located with the assisted user.

I find that there is a genuine dispute of fact whether McLaughlin discloses a device with "circuitry to support connection to two telephone lines" at the assisted user's location.

- 3) microprocessor programmed to initiate telephone connection over second telephone line to relay

Plaintiffs argue that although McLaughlin teaches the use of two lines, it does not teach the initiation of the call to the relay on the second line, Line B, by the assisted user's device, let alone that the microprocessor in that device is programmed to initiate that call. As explained above, McLaughlin states that the second SVD modem is on Line B to the relay service and the relay operator sounds are digitized and sent on Line B to the user's second SVD modem on Line B. As a result, it can be inferred that the two modems are both located at the assisted user's location and that the call to the relay on Line B is initiated by the assisted user's device. Further, McLaughlin also discloses that the "answering system can call out to a relay service on the second Line B" and in one preferred embodiment, the "answering device will set up a SVD link with the relay service on Line B." Col. 31, lns. 34-40. With respect to the microprocessor, McLaughlin states that the modem is in electrical communication with a local computer, col. 5, lns. 8-9, and may operate in a "computer communications mode" (during which the computer controls the modem) or in "stand alone mode." Col. 5, lns. 27-30. According to McLaughlin, the local computer includes a processor. Col. 5, lns. 66-67. I conclude that there is a genuine dispute of fact whether McLaughlin discloses a device with a "microprocessor programmed to operate the device to: . . . initiate a telephone connection over a second telephone line to the relay."

3. Liebermann

As with McLaughlin, plaintiffs argue that Liebermann does not anticipate claim 1 of the '082 patent because it does not disclose a captioned telephone device that provides both the voice and captions of the words spoken by the hearing user to the assisted user. However, because I have found that the '082 patent does not require the captioned telephone device to provide the voice of the hearing user to the assisted user, this argument is moot.

Plaintiffs also contend that Liebermann does not disclose a microprocessor programmed to transmit the voice of the hearing user over the second line to the relay, arguing that the reference discusses only a system using a "party call" connecting the hearing user, assisted user and "center" with a "switch." According to plaintiffs, the assisted user's device connects to the switch and does not itself establish a telephone connection with the relay.

Liebermann states that

The normally hearing person who calls a deaf person dials the deaf person's phone number. However, at the deaf person's station, his or her call is connected to the center on a single line which is the deaf person's designated line to the center. The deaf person's device arranges for switching and enables both the caller and his or her station to be on line as a "party call." The deaf person's station also arranges for the simultaneous transmission of both voice and data on the dedicated line. Thus, the line between the normally hearing person and the deaf person is analog for voice content only, while the line between the deaf person (and now the normally hearing person too) is analog but transfers both voice and data.

Dkt. #92, exh. 19, col. 6, lns. 64-66; col. 7, lns. 1-9. Although the parties merely cite the above language from the specification in Liebermann and fail to fully discuss the meaning

of “party call” and “switching,” it is clear from Liebermann that it is the deaf user’s device that arranges both the switching and “the simultaneous transmission of both voice and data on the dedicated line.” Relying on Figure 2 in Liebermann, plaintiffs attempt to show that the switching occurs somewhere other than in the deaf user’s device and that the switch and not the deaf user’s device makes the call to the relay. However, I cannot determine from the arguments made by the parties that this is true as a matter of law.

Further, defendants note that Liebermann teaches an embodiment that “the telephone installation of the deaf person receiving a call may automatically call the center and switch the incoming call to a routing through the center as is illustrated in FIG. 4.” Col. 5, lns. 48-52. Figure 4 of Liebermann contains a flow chart that shows that after the “caller and deaf’s station are connected,” the “deaf’s station rings the center.” In addition, Figure 4 shows that it is the “circuitry in the deaf’s station [that] enables the caller, the center and the deaf’s station to be all on the line.” Because this language supports an inference that Liebermann discloses a device that establishes a telephone connection with the relay, there is a genuine issue of fact with respect to Liebermann’s anticipation of this claim limitation.

4. Ryan

Plaintiffs contend that Ryan does not disclose and is not enabled with respect to the following elements in claim 1 of the ‘482 patent, claims 1 and 2 of the ‘314 patent or claim 7 of the ‘578 patent: 1) voice recognition software trained to the voice of the call assistant

that 2) transmits text in a format capable of being sent to the assisted user's telecommunication device. Elan Pharmaceuticals, Inc. v. Mayo Foundation for Medical Education & Research, 346 F.3d 1051, 1054 (Fed. Cir. 2003) (citations omitted) (anticipating reference must disclose every element in challenged claims and be enabled). In addition, they argue that if the court construes the preamble of claim 7 of the '578 patent as limiting, Ryan does not disclose the "captioned telephone service" element in that claim.

a. Voice recognition software trained to voice of call assistant

Defendants argue that the following language of Ryan discloses this element of the disputed claims:

[S]peech recognition software could be employed at device 20 to interpret a voice message from a caller at phone 14 and convert the message from a voice format to a data format while providing an error correction feature for words that are not recognized by the software.

* * *

If the software is specifically designed to recognize the voice of particular relay agents, the accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent's voice message into a data message.

Dkt. #92, exh. 17, col.4, lns. 19-38. Although plaintiffs' expert, Ludwick, agrees that there is a "passing reference to revoicing in Ryan," dkt. #98 at 125-26, plaintiffs argue that there is a big difference between software that is designed to do something and software that is trainable. They point out that because the invention in Ryan is directed primarily to error correction and not facilitating conversational-style speech, the "literal meaning" of the

statement in Ryan must be that the software source code is *written* to recognize a specific voice or speech pattern (such as dialect, accent or gender), whereas the patents-in-suit disclose software that is *trainable* to any given person's voice. In making their argument, plaintiffs focus on the fact that Ryan refers to the "voice" (singular) of "particular relay agents" (plural).

As defendants point out, however, Ryan does not define "designed," disclose anything about how the software is written or suggest that the "voice of particular relay agents" is related to the recognition of speech patterns of a group of people. Further, the fact that an important objective of Ryan is error correction does not necessarily prevent Ryan from serving as an anticipatory reference for patents with other objectives, as long as Ryan expressly or inherently discloses the claim limitation at issue. In re Montgomery, 677 F.3d 1375, 1381 (Fed. Cir. 2012) (citations omitted) (newly discovered results of known processes are inherent in prior art, even if one of ordinary skill may not have recognized those inherent characteristics); Seachange International, Inc. v. C-COR, Inc., 413 F.3d 1361, 1380 (Fed. Cir. 2005) (rejecting argument that prior art "teaches away" from claim limitation because "[t]eaching away is irrelevant to anticipation."); Sun Studs, Inc. v. ATA Equipment Leasing, Inc., 872 F.2d 978, 983-84 (Fed. Cir. 1989) (entire disclosure of specification is effective as prior art reference). As a result, I find that there is a genuine issue of fact with respect to whether Ryan discloses "voice recognition software trained to voice of call assistant." (I note that plaintiffs argue for the first time in their reply brief that because the revoicing statement in Ryan is subject to different interpretations, it is

ambiguous and therefore cannot be anticipatory. Mitsubishi Chemical Corp. v. Barr Laboratories, Inc., 718 F. Supp. 2d 382, 415 (S.D.N.Y. 2010). However, I have not considered this issue because it is well established that arguments raised for the first time in a reply brief are waived. Mendez v. Perla Dental, 646 F.3d 420, 424 (7th Cir. 2011).)

Plaintiffs' main argument is that the revoicing disclosure in Ryan was not enabled. Enablement requires that "the prior art reference must teach one of ordinary skill in the art to make or carry out the claimed invention without undue experimentation." Elan Pharmaceuticals, 346 F.3d at 1054 (quoting Minnesota Mining and Manufacturing Co. v. Chemque, Inc., 303 F.3d 1294, 1301 (Fed. Cir. 2002)). Whether undue experimentation would have been required, and thus whether a disclosure is enabling, is a question of law based on underlying factual findings. Minnesota Mining, 303 F.3d at 1301; Enzo Biochem, Inc. v. Calgene, Inc., 188 F.3d 1362, 1369 (Fed. Cir. 1999). The Court of Appeals for the Federal Circuit has held that "an accused infringer [is] entitled to have the district court presume the enablement of unclaimed (and claimed) material in a prior art patent defendant asserts against a plaintiff." Amgen Inc. v. Hoechst Marion Roussel, Inc., 314 F.3d 1313, 1355 (Fed. Cir. 2003). Plaintiffs can overcome this presumption by proving that the relevant disclosures of the prior art patent are not enabled. Id.

Relying on the opinion of their expert, Ludwick, plaintiffs allege that the computing power and technology necessary for voice recognition software trained to the voice of the call assistant did not exist in 1994. (Ryan was filed in 1996 but is a continuation of an abandoned patent that was filed on October 18, 1994.) For example, Ludwick explains that

speech recognition applications available in 1994 could handle only words and phrases that were enunciated slowly and deliberately and that a person of ordinary skill in the art could not have carried out the “real-time” speech translation required in the ‘482 patent. (Although the parties refer only to the ‘482 patent in making most of their arguments, they agree that the same arguments apply to claims 1 and 2 of the ‘314 patent and claim 7 of the ‘578 patent.) Defendants attempt to contradict Ludwick’s opinion with Occhiogrosso’s deposition testimony and several articles, which they say show that continuous speech recognition software and computers with processors fast enough to run the software were available in 1994. Plaintiffs object to this evidence on the grounds that Occhiogrosso’s testimony constitutes improper supplementation of his expert opinion and the articles are inadmissible hearsay evidence. However, as noted in my earlier discussion of plaintiffs’ motion to strike Occhiogrosso’s deposition testimony, it is unnecessary to resolve the parties’ evidentiary disputes because arguments regarding continuous recognition software and “real-time revoicing” do not appear to be relevant given the parties’ arguments.

Defendants contend correctly that none of the claims at issue require real-time revoicing or any other temporal limitation regarding the speed at which the claimed steps must be performed. Although the specification teaches that the invention is directed toward a relay system “so as to provide more conversation-like performance of voice to text” and “preferably” operates “in accordance with the fast translation methodology” to produce a “very conversation-like feel,” the claim itself has no such requirements. ‘482 patent, col. 3, lns. 14-17; col. 4, ln. 64 to col. 5, ln. 7. As a result, plaintiffs must limit their enablement

arguments to whether Ryan was enabled with respect to “voice recognition software trained to voice of call assistant” and not “real-time revoicing.” Because plaintiffs’ arguments on summary judgment focus on the lack of “real-time revoicing” and “continuous speech recognition,” they have failed to meet their burden of rebutting the presumption that Ryan is enabled.

In an additional argument, defendants note that the revoicing disclosure in Ryan did not have to be enabled when its provisional application was filed in 1994 because “[e]nablement of an anticipatory reference may be demonstrated by a later reference.” Bristol-Myers Squibb Co. v. Ben Venue Laboratories, Inc., 246 F.3d 1368, 1379 (Fed. Cir. 2001). Because the ‘482 patent (the parent patent) was filed on September 8, 1997, Ryan had to have been enabling to one of skill in the art sometime before September 7, 1996. Id. See also 35 U.S.C. § 102(b)(1) (prior art disclosure must be made more than one year before effective filing date of claimed invention). Defendants argue that because there is evidence that the inventor of the ‘482 patent, Robert Engelke, was able to conceive of the idea of the ‘482 patent in June or July of 1996, one skilled in the art also would have been able to practice the disclosures in Ryan at that time without undue experimentation. (Engelke testified at his deposition that in the summer of 1996, “new trained voice recognition software” led to an “ah-ha moment,” causing him to launch development efforts with respect to his invention. Dkt. #92, exh. 41 at 79-80.) On reply, plaintiffs attempt to refute this evidence by offering other, seemingly contradictory statements made by Engelke at his deposition and presenting evidence that the software available to Engelke in 1996 was not

the “continuous recognition software” that was necessary for Engelke to develop the invention in the ‘482 patent in 1997. Although plaintiffs’ references to continuous recognition software would appear to be irrelevant for the reasons stated above, the parties’ dispute raises potential issues of fact with respect to the date of plaintiffs’ invention and the date on which Ryan was first enabled.

In sum, I conclude that there is a genuine issue of fact as to whether Ryan contains an enabled disclosure of “voice recognition software trained to voice of call assistant.”

b. Transmission of text

Plaintiffs next contend that Ryan is not enabled with respect to “voice recognition software that outputs a digital text message stream and transmits that digital text message stream to a telecommunication device.” Plaintiffs make the same enablement argument as they did with the previous claim limitation, that in 1994, a person of ordinary skill in the art would not have possessed the knowledge or technology to accomplish this limitation. The argument fails for the same reasons explained above.

Plaintiffs also state that a person of ordinary skill in the art would not find any support in Ryan to help develop the transmission steps of the ‘482 patent invention. However, as defendants point out, Ryan discusses the use of speech recognition software to convert the agent’s voice message into a data message, col. 4, lns. 33-38, and later discusses data transmission specifically:

Although the telecommunications relay service must be capable of transmitting data from terminal 12 to TDD 16, any conventional means of

data transmission will suffice. In the preferred embodiment, the text displayed at the monitor 24 is transformed into an appropriate form for serial transmission over a communications line such as link 22.

* * *

The serial bit stream may utilize a Baudot code, ASCII . . . , or some other transfer syntax.

Dkt. #92, exh. 17, col. 7, ln. 66 to col. 8, ln. 10. I conclude there is a genuine issue of fact whether Ryan contains an enabled disclosure of this claim element.

c. “Captioned telephone service” in claim 7 of the ‘578 patent

Plaintiffs claim that because the preamble to claim 7 of the ‘578 patent discloses a “system for providing captioned telephone service,” it requires the assisted user to receive both the voice and text transcription of the words spoken by the hearing user, an element that Ryan does not disclose. Defendants do not appear to oppose this interpretation and argue that to the extent that the preamble is limiting, Ryan states explicitly that a telecommunications device for the deaf generally “combines the functions of a telephone and a typewriter and provides a display.” Col. 1, lns. 22-27. Further, Ryan discloses an embodiment in which “[a] first telecommunications link 18 connects phone 14 with interface 10 through an agent telephone device 20, and a second telecommunications link 22 connects TDD 16 with interface 10 through terminal 12.” Ryan goes on to teach that the interface presents one example for relaying messages between a pair of customers and defines the term “message” as “communication from one entity to another entity regardless of the form of the message (e.g., voice, data, images).” Col. 3, ln. 61 to col. 4, ln. 2.

Contrary to plaintiffs' assertion, the statements in Ryan are not necessarily limited to the functions of a captioned telephone device because Ryan states that the embodiment discussed above is for a "telecommunications relay interface system." Col. 3, lns. 43-46. Consequently, there is a genuine issue of fact whether Ryan discloses the element of an assisted user receiving both voice and text messages.

In sum, plaintiffs' motion for summary judgment with respect to Ryan's nonanticipation of claim 1 of the '482 patent, claim 1 and 2 of the '314 patent and claim 7 of the '578 patent must be denied.

III. DEFENDANTS' PARTIAL MOTION FOR SUMMARY JUDGMENT

A. Willful Infringement

A finding of willfulness permits an award of enhanced damages under 35 U.S.C. § 284. In re Seagate Technology, LLC, 497 F.3d 1360, 1368 (Fed. Cir. 2007) (en banc). In Seagate, the Court of Appeals for the Federal Circuit held that a patent holder could establish willful infringement by adducing by clear and convincing evidence that 1) defendants acted "despite an objectively high likelihood that [their] actions constituted infringement of a valid patent"; and 2) "this objectively-defined risk (determined by the record developed in the infringement proceeding) was either known or so obvious that it should have been known to [defendants]." The Federal Circuit has stated that *Seagate's* objective prong for willfulness "tends not to be met where an accused infringer relies on a reasonable defense to a charge of infringement." Spine Solutions, Inc. v. Medtronic Sofamor

Danek USA, Inc., 620 F.3d 1305, 1319 (Fed. Cir. 2010). Further, even though the jury may be asked to determine the underlying facts relevant to the alleged infringer's defense or defenses, "the ultimate legal question of whether a reasonable person would have considered there to be a high likelihood of infringement of a valid patent should always be decided as a matter of law by the judge." Bard Peripheral Vascular, Inc. v. W.L. Gore & Associates, Inc., 682 F.3d 1003, 1008 (Fed. Cir. 2012). Thus, as this court noted in Riddell, Inc. v. Schutt Sports, Inc., 724 F. Supp. 2d 981, 999-1000 (W.D. Wis. 2010), "[a] defendant may get off the hook under In re Seagate by identifying an objectively reasonable defense, even if the court ultimately disagrees with the defense." (Citations omitted).

Defendants contend that plaintiffs cannot establish Seagate's first prong because defendants have asserted reasonable invalidity defenses to plaintiff Ultratec's' patents. Although defendants have not moved for summary judgment on their invalidity claims, they contend that the record is sufficient to permit the court to find the defenses reasonable even without deciding their ultimate merit. In particular, defendants ask this court to find, as a matter of first impression, that a grant of *inter partes* review by the Patent Trial and Appeal Board proves that defendants have a reasonable invalidity defense.

Inter partes review proceedings became available on September 16, 2012 as part of the Leahy-Smith America Invents Act, and are designed to improve upon the previous *inter partes* re-examination process at the Patent and Trademark Office. Abbott Laboratories v. Cordis Corp., 710 F.3d 1318, 1326 (Fed. Cir. 2013) (citing 35 U.S.C. §§ 311–319 (2013)). The purpose of this reform was to convert *inter partes* reexamination from an examinational

to an adjudicative proceeding. *Id.* (citing H.R. Rep. No. 112–98, pt. 1, at 46–47 (2011)). *Inter partes* review allows a petitioner to request to cancel, as unpatentable, one or more claims of a patent on the grounds authorized under 35 U.S.C. §§ 102 or 103, and only on the basis of prior art consisting of patents or printed publications. 35 U.S.C. § 311. These “adjudicative” *inter partes* review proceedings involve motions practice, limited discovery, depositions and an oral hearing. 35 U.S.C. §§ 311(b), 316(a); 37 C.F.R. §§ 42.22, 42.51, 42.53, 42.70.

To obtain *inter partes* review, a petitioner must show “a reasonable likelihood that the petitioner will prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). This is a higher burden than in the predecessor reexamination proceedings where the requester was required to show only a “substantial new question of patentability.” 35 U.S.C. §§ 304, 314(a). If *inter partes* review is instituted, the proceeding is conducted before a panel of three “persons of competent legal knowledge and scientific ability,” deemed Administrative Patent Judges. 35 U.S.C. §§ 6(a)-(c), 311.

Defendants argue that because of these changes, this court need not follow prior case law which held that initial office actions granting re-examination were of little weight in assessing the reasonableness of a defendant’s invalidity defenses. *E.g., Hoechst Celanese Corp. v. BP Chemicals, Ltd.*, 78 F. 3d 1575, 1584 & n.2 (Fed. Cir. 1996). Instead, defendants argue, the institution of *inter partes* review by the board should be deemed conclusive evidence of the reasonableness of the petitioner’s invalidity defenses.

I agree with defendants that in light of the heightened threshold showing necessary for the grant of *inter partes* review, the review proceedings should be entitled to more weight in the reasonableness analysis than was given to the prior re-examination procedure. Nonetheless, I am not persuaded that the grant of review deserves conclusive weight. A decision to institute *inter partes* review is merely a threshold determination whether, using the broadest reasonable interpretation of the claim terms, the petitioner has demonstrated a reasonable likelihood that at least one of the patent claims will be found invalid by a preponderance of the evidence. 37 C.F.R. § 542.100(b); 35 U.S.C. § 314(a); 35 U.S.C. § 316. It is sometimes made without any response by the patentee, as it was with respect to most of the petitions in this case. 35 U.S.C. § 313; 37 C.F.R. § 42.107 (patentee may but is not required to file preliminary response to petition and can expedite the proceeding by electing to waive preliminary response). Notwithstanding the elevated threshold for obtaining review, the preliminary and incomplete nature of a decision to institute *inter partes* review cautions against affording those decisions conclusive weight. Furthermore, In re Seagate holds that the question whether an accused infringer's defenses were objectively reasonable should be "determined by the record developed in the infringement proceeding." Although nothing in that opinion clearly precludes the court from affording controlling weight to a grant of review by the board, I am satisfied that the more prudent course is to make a reasonableness determination after hearing a full presentation of the evidence from both sides at trial.

In the alternative, defendants ask this court to review their invalidity arguments as presented in their *inter partes* review petitions and make an independent assessment of their reasonableness. I decline to do so. It is not a good use of judicial resources to pre-screen for reasonableness defenses that will be fully presented at trial. Defendants may renew their motion for dismissal of plaintiffs' willfulness case after the close of the evidence. At this time, defendants' motion for summary judgment on willful infringement will be denied.

B. Induced Infringement

Under 35 U.S.C. § 271(b), a party is liable for infringement if it "actively induces infringement of a patent." "In order to prevail on an inducement claim, the patentee must establish first that there has been direct infringement, and second that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another's infringement." ACCO Brands, Inc. v. ABA Locks Manufacturers Co., 501 F.3d 1307, 1312 (Fed. Cir. 2007) (internal quotation marks omitted). Thus, to support a finding of inducement there must be "evidence of culpable conduct, directed to encouraging another's infringement, not merely that the inducer had knowledge of the direct infringer's activities." DSU Medical Corp. v. JMS Co., 471 F.3d 1293, 1306 (Fed. Cir. 2006).

A patentee may prove both indirect infringement and the corresponding direct infringement by circumstantial evidence. Liquid Dynamics Corp. v. Vaughan Co., 449 F.3d 1209, 1219 (Fed. Cir. 2006). "There is no requirement that direct evidence be introduced, nor is a jury's preference for circumstantial evidence over direct evidence unreasonable per

se.” Id. Moreover, “[t]he drawing of inferences, particularly in respect of an intent-implicating question . . . is peculiarly within the province of the fact finder that observed the witnesses.” Broadcom Corp. v. Qualcomm Inc., 543 F.3d 683, 700 (Fed. Cir. 2008). See also Fuji Photo Film Co. v. Jazz Photo Corp., 394 F.3d 1368, 1378 (Fed. Cir. 2005) (declining to disturb jury's verdict because intent to induce infringement “is a factual determination particularly within the province of the trier of fact”).

In Global-Tech Appliances, Inc. v. SEB S.A., ___ U.S. ___, 131 S. Ct. 2060, 2068 (2011), the Supreme Court held that induced infringement “requires knowledge that the induced acts constitute patent infringement.” This knowledge requirement may be satisfied by showing either actual knowledge or willful blindness. Id. at 2072. Noting that the willful blindness doctrine has been widely accepted by the federal judiciary in the criminal law context, the Court held that a finding of willful blindness in the induced infringement context can be made upon evidence showing that 1) the defendant subjectively believed that there was a high probability that a fact existed; and 2) the defendant took deliberate actions to avoid learning of that fact. Id. at 2070. As the Court explained:

We think these requirements give willful blindness an appropriately limited scope that surpasses recklessness and negligence. Under this formulation, a willfully blind defendant is one who takes deliberate actions to avoid confirming a high probability of wrongdoing and who can almost be said to have actually known the critical facts. See G. Williams, Criminal Law § 57, p. 159 (2d ed. 1961) (“A court can properly find wilful blindness only where it can almost be said that the defendant actually knew”). By contrast, a reckless defendant is one who merely knows of a substantial and unjustified risk of such wrongdoing, see ALI, Model Penal Code § 2.02(2)(c) (1985), and a negligent defendant is one who should have known of a similar risk but, in fact, did not, see § 2.02(2)(d).

Id., at 2070-71. The Court rejected the “knew or should have known” standard set forth by the Court of Appeals for the Federal Circuit, in part because the standard permitted “a finding of knowledge when there is merely a ‘known risk’ that the induced acts are infringing.” Id. at 2071.

Defendants contend that plaintiffs have failed to establish a triable issue of fact on the element of intent to induce. They say that plaintiffs have no evidence establishing that during the time period before this suit was filed defendants knew or deliberately avoided confirming their knowledge that they were inducing others to induce plaintiffs’ patents. As for the time period after suit, defendants contend that the board’s decision to grant *inter partes* review establishes as a matter of law that they had a reasonable invalidity defense to the patents, negating a finding of intent. I will address each of these time periods separately.

1. Specific intent: pre-suit

Defendants argue that plaintiffs have failed to adduce evidence from which a reasonable jury could infer that, before this suit was filed, defendants knew of or were willfully blind to facts indicating that they were leading others to commit acts that infringed one or more of the patents in suit. (Although it is not spelled out in the parties’ submissions, I presume that the alleged direct infringers are defendants’ CaptionCall customers.) Defendants point out that plaintiffs have no evidence refuting the testimony of defendants’ product development team members and chief executive officer, all of whom testified that

although they were aware that plaintiff Ultratec had patents, they did not read, review or investigate them.

As an initial matter, I note that defendants' argument rests on the premise that to establish knowledge, plaintiffs must show not only that defendants were aware of the patents, but that they were aware of the scope of the patents' claims. Although plaintiffs do not develop a strong argument to the contrary, they cite Global-Tech for the proposition that the inducer must have "knowledge of the existence of the patent that is infringed." Plts'. Br. in Opp., dkt. #157 at 95 (quoting Global-Tech, 131 S. Ct. at 2068). Although it is true that the particular dispute in Global-Tech involved knowledge of the patent generally rather than knowledge of infringement, the court's formulation of what must be known to establish specific intent—knowledge "that the induced acts constitute patent infringement"—clearly goes beyond mere knowledge of the patent. Indeed, without more, mere knowledge of the "existence" of a patent, with no understanding of its scope, would give rise to no more than a "'known risk' that the induced acts are infringing," a standard the Court explicitly rejected. Id. at 2071. See also DSU Medical, 471 F.3d at 1307 (finding inducer had "no intent to infringe" even though it had knowledge that the patent existed, where inducer had obtained opinions from lawyers stating that the accused device would not infringe the patent, thereby implying that inducer must know that patent will be construed in way that results in induced acts constituting infringement). Accordingly, I agree with other courts that have found in the wake of Global-Tech that awareness of the existence of a patent is not enough to show knowledge for purposes of an induced infringement claim under 35 U.S.C. § 271(b). E.g.,

Toshiba Corp. v. Imation Corp., 990 F. Supp. 2d 882, 908 (W.D. Wis. 2013) (overturning jury's finding of inducement where plaintiff's licensing agent sent letter to defendants informing them that plaintiff owned portfolio of 360 patents deemed essential to practicing DVD standards and that defendants needed license, but where no evidence defendants had read or investigated patents); All-Voice Developments U.S., LLC v. Microsoft Corp., 988 F. Supp. 2d 1248, 1262 (W.D. Wash. 2013) (granting summary judgment to defendant on inducement claim where, although one of defendant's product developers was aware of patent, developer testified that he did not review patent, did not know what it covered and that it was defendant's practice to focus on innovation rather than review other's patents); Mikkelsen Graphic Engineering Inc. v. Zund America, Inc., 07-C-0391, 2011 WL 6122377 (E.D. Wis. Dec. 8, 2011) ("Knowledge of a *risk* that the acts might constitute infringement is not enough; the inducer must *know* that the acts constitute infringement.") (emphasis in original). See also Commil USA, LLC v. Cisco Systems, Inc., 737 F.3d 699 (Fed. Cir. 2013) ("The intent element of § 271(b) is met when the accused infringer acts with actual knowledge of the patent claim and was 'actively inducing' conduct *that it knew to be within the scope of an asserted claim.*") (Reyna, J., dissenting from denial of reh'g *en banc*) (citation omitted) (emphasis added); BRK Brands, Inc. v. Nest Labs, Inc., 13 C 7900, 2014 WL 1225324 (N.D. Ill. Mar. 19, 2014) ("[T]he Supreme Court has held that what is required for induced infringement is knowledge of the patent *and that it was infringed . . .*") (citing Global-Tech) (emphasis added) (Posner, J., sitting by designation); Mark A. Lemley, Inducing Patent Infringement, 39 U.C. Davis L. Rev. 225, 243 (2005) ("[B]ecause so many

patents are invalid and the scope of even valid patents is impossible to determine with precision, a patent is an inherently probabilistic right. As a result, it is not reasonable to assume that merely because a defendant is aware of the existence of a patent, he intended to infringe it.”).

Even so, plaintiffs say a reasonable jury could reject the testimony of defendants’ product developers and chief executive officer regarding their asserted lack of knowledge of the scope of plaintiffs’ patents and find that defendants did actually investigate and understand the scope of the patents.

This argument fails for two reasons. First, as defendants point out, plaintiffs’ proposition is flatly inconsistent with the facts they proposed in support of their own motion for summary judgment on defendants’ affirmative defenses. Plaintiffs proposed as *undisputed* the facts that defendants “did not investigate the patents or have lawyers look into the patents” and that Sorenson’s chief executive officer and executive team members were “not concerned” about plaintiffs’ patents. Plts.’ Rep. to Dfts.’ Resp. to Plts.’ PFOF, dkt. #194 at ¶ 72 (“There is no dispute that Defendants did not investigate the Ultratec patents or have lawyers look into those patents.”); *Id.* at ¶ 82 (“[T]he proposed finding of fact that Mr. Nola ‘still did not investigate these patents’ after receiving Mr. Puzey’s [January 2006] email is relevant and undisputed.”); *Id.* at ¶ 87 (“It is clear from Mr. Puzey’s testimony that he believed he had no responsibility to investigate the Ultratec patents”); *Id.* at ¶ 159 (list of Ultratec’s patents “caused no concern” to executives in charge of the CaptionCall project at Sorenson).

“It is well established that the doctrine of judicial estoppel acts ‘to protect the integrity of the judicial process . . . by prohibiting parties from deliberately changing positions according to the exigencies of the moment.’” Jarrard v. CDI Telecommunications, Inc., 408 F.3d 905, 914 (7th Cir. 2005) (quoting New Hampshire v. Maine, 532 U.S. 742, 749 (2001)). Although there are various reasons why a party may be allowed to advance conflicting legal theories, the doctrine is less forgiving where, as here, a party advances opposing versions of the facts. “A party’s ‘directly conflicting statements about purely factual matters, such as ‘The light was red/green,’ present precisely the sort of threat to judicial integrity that the doctrine of judicial estoppel was designed to prevent.” Boston Gas Co. v. Century Indemnity Co., 708 F.3d 254, 264 (1st Cir. 2013) (quoting Cleveland v. Policy Management Systems Corp., 526 U.S. 795, 802 (1999)). Having proposed as undisputed the fact that defendants did not investigate the patents in order to establish that defendants could not have relied on any alleged promises by Ultratec to license its technology, plaintiffs may not now disavow that fact simply because it hurts their claims of induced infringement. Accord Finisar Corp. v. DirecTV Group, Inc., 523 F.3d 1323, 1339 (Fed. Cir. 2008) (patentee who successfully avoided laches defense by arguing that defendant had not shown patentee should have known of defendant’s alleged infringing conduct until late 2003 was judicially estopped from arguing in same litigation that letter patentee had sent to parent of accused infringer six years earlier demonstrated that accused infringer knew of patent and risks of infringement to support patentee’s claim of willful infringement).

I also find that there is insufficient evidence to support plaintiffs' actual knowledge theory. Plaintiffs point to Puzey's testimony that he "looked under every stone" to understand the competitive situation, along with his awareness that Ultratec had patents that it claimed protected its CapTel service, and argue that he must be lying about what he knew because "[a]ny minimally inquisitive competitive research would have involved looking at potentially blocking IP." Indeed, plaintiffs point out, defendants' market research firm recommended that defendants do just that. Yet plaintiffs have no evidence to show that any analysis of plaintiffs' patents was ever done before this suit was filed. Plaintiffs deposed Puzey, Nola and three other members of the CaptionCall product development team and all denied having seen or reviewed Ultratec's patents. Although it may be permissible for a jury to divine a defendant's intent from circumstantial evidence, juries may not create historical facts from thin air. Permitting plaintiffs to argue to the jury that Puzey (or someone else at Sorenson) must have analyzed the patents because that's what any reasonable person in defendants' position would have done is not only a call for speculation, but an invitation to the jury to find knowledge on the basis of facts that amount only to negligence or recklessness.

As a result, plaintiffs are left with attempting to show knowledge under a willful blindness theory. Defendants insist that plaintiffs cannot establish willful blindness because, even if plaintiffs could show that defendants subjectively believed that there was a high probability that their CaptionCall service infringed one or more of Ultratec's patents, they cannot point to any "deliberate step" taken by defendants to avoid confirming that belief.

As defendants point out, to the extent plaintiffs appear to suggest that defendants should have obtained the opinion of counsel, such evidence is no longer relevant after the passage of Section 17 of the America Invents Act. That section added a new provision to title 35, which provides that

The failure of an infringer to obtain the advice of counsel with respect to any allegedly infringed patent, or the failure of the infringer to present such advice to the court or jury, may not be used to prove that the accused infringer willfully infringed the patent or that the infringer intended to induce infringement of the patent.

35 U.S.C. § 298.

Even without the failure to obtain a legal opinion, however, I am persuaded that there is enough evidence from which a jury could infer that defendants put their heads in the sand to avoid confirming their belief that they were infringing plaintiffs' patents. As the Court of Appeals for the Seventh Circuit has pointed out in the criminal context (from which Global-Tech's willful blindness standard was drawn), willful blindness is not restricted to overt physical acts of avoidance, but may be shown where the defendant cuts off his normal curiosity by an "effort of will." United States v. Carrillo, 435 F.3d 767, 780 (7th Cir. 2006). See also United States v. Craig, 178 F.3d 891, 897–98 (7th Cir. 1999) (holding that defendant's "failure to ask questions that would certainly arise from the circumstances . . . is evidence that could lead a jury to determine" that the defendant deliberately avoided learning the truth) (citation omitted). The key determinations in a case of psychological avoidance are "what the defendant knew and whether that knowledge raises a reasonable inference that [he] remained deliberately ignorant of facts constituting criminal knowledge."

United States v. Pabey, 664 F.3d 1084, 1093 (7th Cir. 2011) (quoting United States v. Ramirez, 574 F.3d 869, 877 (7th Cir. 2009)). For example, in United States v. Leahy, 464 F.3d 773, 794 (7th Cir. 2007), an insurance broker for a temporary employment agency was convicted of mail and wire fraud in connection with the agency's insurance fraud scheme. The court held that an ostrich instruction was appropriate because the defendant had asked no questions about the company's auditing problems despite his exposure to “numerous red flags, obvious to someone with his training and experience, over the duration of his business relationship with [the agency].” Id. at 796.

Here, there were numerous red flags indicating the high likelihood that defendants were inducing users of their CaptionCall relay service to infringe Ultratec's patents. In particular, Puzey was aware of Ultratec's patents and patent applications from his own review of the patent office website. He had been told that plaintiffs held “all the patents” on captioned telephone service and was aware that others viewed Ultratec's patent rights in the captioned telephone arena as a barrier to entry in the market. Indeed, Puzey even recognized that plaintiffs' patents might pose “landmines” or cause “grief” for defendants' developing CaptionCall product. Additionally, there is evidence suggesting that defendants copied at least certain aspects of CapTel's service, including the use of voice recognition software for voice to text transcription. Finally, defendants' marketing research firm warned defendant that the CapTel technology was patented and advised defendants to determine to what extent their CaptionCall product differed.

Despite the numerous warning signs that their CaptionCall service was likely to be infringing one or more of Ultratec's patents, and despite Puzey's commitment to "looking under every stone" to understand the competitive situation, defendants chose to continue to ignore the patents and not read them. A reasonable jury could conclude that by doing so, defendants were not merely displaying deliberate indifference, but were deliberately *avoiding* confirming what they already knew: that their CaptionCall service was infringing. Indeed, although defendants' product developers testified that Sorenson had a policy of focusing on innovation instead of reviewing competitors' patents, the chief executive officer denied that the company had any policies and said that sometimes a product manager or engineer might review a competitor's patents as part of the competitive analysis. All told, although defendants may not have had a duty to go out of their way to investigate plaintiffs' patents, I am satisfied that there is sufficient evidence from which a jury could conclude that defendants went out of their way to *ignore* the patents. Accordingly, I will deny defendants' motion for summary judgment on plaintiffs' claim of induced infringement prior to suit.

2. Post-suit

Defendants say that after this suit was filed, they read the patents and determined that they were invalid. Pointing again to the board's grant of *inter partes* review, defendants argue that their invalidity defenses are objectively reasonable and preclude a finding of induced infringement after they learned of the patents.

I have declined to make a finding that defendants' invalidity claims are objectively reasonable based merely on the board's initial determination to institute a review proceeding. However, defendants' argument fails for other reasons as well. Defendants rely on the Federal Circuit's recent decision in Commil, 720 F.3d at 1367-68, in which the court held for the first time that a good faith belief of invalidity "may negate the requisite intent for induced infringement." But see BRK Brands, 2014 WL 1225324 at *2 (calling into question propriety of relying on claim of invalidity as defense to induced infringement). However, as the language in Commil makes clear, for inducement purposes the question is not whether an invalidity defense was objectively reasonable, but whether it was actually held in good faith. As plaintiffs point out, defendants have adduced no evidence, such as the opinion of counsel, indicating how or when they came to a good faith belief that the patents were invalid between the date the complaint was filed and March 5, 2014, the date the board granted the petitions for *inter partes* review.

As for the period after the board issued its decisions, it is difficult to argue that defendants did not hold a good faith belief that the patents for which the board granted review would be found invalid. Nonetheless, in Commil, 720 F.3d at 1368, the court stated only that a good-faith belief of invalidity is evidence that *may* negate the specific intent to encourage another's infringement. (Emphasis added). Indeed, the court was quick to point out that "[t]his is . . . not to say that such evidence precludes a finding of induced infringement. Rather it is evidence that should be considered by the fact-finder in determining whether an accused party knew 'that the induced acts constitute patent

infringement.’” Id. at 1369. Accordingly, I will leave it to the jury to assess whether defendants’ invalidity defenses were held in good faith and whether they negate the specific intent to induce infringement. Defendants’ motion for summary judgment on this aspect of plaintiffs’ inducement claims will be denied.

C. Contributory Infringement

35 U.S.C. § 271(c) states that

Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

To prove contributory infringement, a party must offer evidence of the following: 1) direct infringement; 2) the accused infringer had knowledge of the patent; 3) the component has no substantial noninfringing uses; and 4) the component is a material part of the invention.

Fujitsu Ltd. v. Netgear Inc., 620 F.3d 1321, 1326 (Fed. Cir. 2010).

Defendants contend that they are entitled to summary judgment on plaintiffs’ allegations of contributory infringement for the following reasons: 1) defendants lacked sufficient pre-suit knowledge of the patents; and 2) plaintiffs have failed to pursue their claims diligently. It is unnecessary to address the first ground because defendants succeed on the second.

Defendants argue that plaintiffs failed to identify any theory of contributory infringement in their infringement contentions or in their expert's report. According to defendants, plaintiffs' infringement contentions and their expert's report fail to identify how the sale of any component contributed to infringement by another party, that there was direct infringement by third parties or that there was no substantial non-infringing use of the defendants' products.

In response, plaintiffs acknowledge that they did not use the term "contributory" or frame their contentions in terms of the elements of a contributory infringement claim. They insist, however, that the facts establishing the elements of a contributory infringement claim with respect to the '835 and '578 patents are implicit in their infringement contentions and expert's report. Plts.' Resp. to Dfts.' Suppl. PFOF, dkt. #154 at ¶¶ 208-214. (They articulate no theory with respect to the remaining six patents, thereby abandoning any claims of contributory infringement that could be brought on any of the other six patents.)

Plaintiffs' contention that their infringement contentions and expert report adequately notify defendants of the basis for their contributory infringement claims is a stretch. Even if one agrees that the reports are sufficient to disclose that the alleged material component that contributes to infringement is defendants' CaptionCall Model 57T phone and that the alleged direct infringers are defendants' customers who use it, nothing in the infringement contentions or the expert's report addresses the question whether there are substantial non-infringing uses for the phone, the lack of which plaintiffs must prove in order to establish a claim of contributory infringement. Although plaintiffs articulate a well-

reasoned theory in their submissions, their expert cannot testify to matters not disclosed in his report. Fed. R. Civ. P. 26(a)(2)(B).

Perhaps more important, plaintiffs have failed to present evidence showing the necessary element of an act of direct infringement. E.g., Linear Technology Corp. v. Impala Linear Corp., 379 F.3d 1311, 1326 (Fed. Cir. 2004) (“There can be no inducement or contributory infringement without an underlying act of direct infringement.”) (Citation omitted). As plaintiffs acknowledge in their brief, *dk. #157* at 114-119, no single actor performs all of the steps of the methods claimed in the ‘835 and ‘578 patents; some of the steps are performed by defendants’ assisted users, while others are performed by defendants. Citing Akamai Technologies, Inc. v. Limelight Networks, Inc., 692 F.3d 1301 (Fed. Cir. 2012), plaintiffs say it is not necessary for a finding of contributory infringement that the acts resulting in direct infringement be completed by a single entity. However, Akamai is of no help to plaintiffs. Not only was its holding limited to induced infringement under § 271(c), but that holding has recently been overturned by the United States Supreme Court. Limelight, 134 S. Ct. at 2117 (no direct infringement where performance of all the patent's steps is not attributable to any one person).

Finally, plaintiffs argue in a footnote that they can establish the necessary act of direct infringement of the methods by showing that defendants’ assisted users exercised “sufficient control” over defendants to deem them a single entity for purposes of direct infringement. *Dkt. #157* at 19. Plaintiffs have waived this argument by failing to develop it adequately. Their argument is in a footnote, consists of four sentences and contains no citation to

authority. Cf. Parker v. Franklin County Community School Corp., 667 F.3d 910, 924 (7th Cir. 2012) (finding defendants waived argument under similar facts). At this “put up or shut up” moment in this lawsuit, plaintiffs’ perfunctory argument is insufficient to stave off defendants’ motion with respect to contributory infringement.

In sum, because plaintiffs failed to timely disclose the basis for their theory of contributory infringement and because that theory fails in any event, I will grant summary judgment to defendants on this claim.

D. Marking Statute and Availability of Pre-Suit Damages

The patent marking statute, 35 U.S.C. § 287(a), limits the extent to which damages may be recovered where products covered by a United States patent are sold without the notice required by the statute. It reads in relevant part:

Patentees, and persons making, offering for sale, or selling . . . any patented articles for or under them or importing any patented articles . . . may give notice to the public by [marking the patented product.] . . . In the event of failure so to mark, no damages shall be recovered by patentee in any action for infringement, except on proof that the infringer was notified of the infringement and continued to infringe thereafter, in which event damages may be recovered only for infringement occurring after such notice. Filing of an action for infringement shall constitute such notice.

Under this statute, therefore, a patentee may notify a party it believes is infringing its patent by providing either constructive notice through appropriate marking on the product or label or actual notice to the alleged infringer. SRI International, Inc. v. Advanced Technologies Laboratories, Inc., 127 F.3d 1462, 1469 (Fed. Cir. 1997). The statute serves three related

purposes: 1) helping to avoid innocent infringement; 2) encouraging patentees to give notice to the public that the article is patented; and 3) helping the public know whether an article is patented. Nike, Inc. v. Wal-Mart Stores, Inc., 138 F.3d 1437, 1443 (Fed. Cir. 2010) (citations omitted).

Ordinarily, the marking statute does not apply to method claims because, “where the patent claims are directed to only a method or process there is nothing to mark.” American Medical Systems, Inc. v. Medical Engineering Corp., 6 F.3d at 1538 (Fed. Cir. 1993). However, in American Medical Systems, the court held that where the patent contains both apparatus and method claims, “to the extent that there is a tangible item to mark by which notice of the asserted method claims can be given, a party is obliged to do so if it intends to avail itself of the constructive notice provisions of section 287(a).” Id. at 1538–39.

In this case, defendants contend that plaintiffs are barred under § 287(a) from recovering pre-suit damages for the ‘082, ‘104 and ‘314 patents because they failed to mark their CapTel phones with these patent numbers. Plaintiffs do not challenge defendants’ position with respect to the ‘082 and ‘104 patents, conceding that their CapTel phones are patented articles embodying these patents. With respect to the ‘314 patent, plaintiffs insist that the marking statute does not apply because its CapTel phones are not a component of the ‘314 patent.

As set out above, claims 1 and 2 of the ‘314 patent disclose a relay comprising a speaker, microphone, computer and a modem. Plaintiffs argue that although the modem has the purpose or function of transmitting to a telecommunication device, the claims are not

method claims because the purpose or function is not claimed. They contend that because their phones do not embody the '314 patent, they had no obligation to mark them with the patent number. Instead, plaintiffs have asserted that their CapTel service has “employed the system” recited in claims 1 and 2 of the '314 patent for use with CapTel devices. Plts.’ Resp. to Dfts.’ Suppl. PFOF, dkt. #154 at ¶ 444.

Plaintiffs take an unduly narrow view of the marking statute and of the court’s holding in American Medical Systems. Moreover, they cite no case law holding that a patentee who sells a product embodying or specially made for use with a “system” patent as opposed to a “method” patent has no obligation to comply with the marking statute. To the contrary, courts have extended the rationale of American Medical Systems to system claims, finding them analogous to method claims. For example, in IMX, Inc. v. LendingTree LLC, 2005 WL 3465555, *4 (D. Del. Dec. 14, 2005), the court found that the owner of a patent directed to a “method and system for trading loans” was obligated to mark the website through which the software is accessed, even though “the IMX website itself is not the patented invention.” As that court explained, “consistent with the purpose of § 287(a) as interpreted by the Federal Circuit, the website is intrinsic to the patented system and constitutes a ‘tangible item to mark by which notice of the asserted method claims can be given.’” Id. (quoting American Medical Systems, 6 F.3d at 1538-39). Similarly, in Inline Connection Corp. v. AOL Time Warner, 465 F. Supp. 2d 312, 321, 324 (D. Del. 2007), the court held that a high speed internet service provider’s failure to mark a wall jack specifically designed for and intrinsic to the patented system precluded the recovery of pre-litigation

damages. See also Maxwell v. J. Baker, Inc., 86 F.3d 1098, 1111 (Fed. Cir. 1996) (owner of patented system for attaching mated pairs of shoes together complied with marking statute by directing her licensee to mark patent number on shoes sold with attachment system). The lesson of these cases is that where the patentee makes or sells a tangible product that is intrinsic to a patented system, the patentee must mark the tangible product.

The patentee bears the burden of proving that it complied with either the marking requirement or the specific notice requirement of § 287. Dunlap v. Schofield, 152 U.S. 244, 248 (1894) (“The duty of alleging, and the burden of proving, either [actual notice or constructive notice] is upon the [patentee].”). See also 7 Donald S. Chisum, Chisum on Patents § 20.03[7][c][v] (2002) (“A plaintiff who seeks to recover for damages for acts prior to the filing of suit bears the burden of pleading and proving compliance with either the marking requirement or with the specific notice requirement.”). Plaintiffs do not deny that, if their phones had been properly marked, the marking could have placed others on notice of the ‘314 patent. Alternatively, as defendants point out, plaintiffs could have marked other tangible components of their patented CapTel relay system, such as the call assistant’s workstation, or provided notice of its patent rights via text stream onto the digital computer. Accordingly, because plaintiffs sold tangible products that either embody the relay system claimed in the ‘314 patent or are integral to it, their failure to produce evidence showing that they marked any of these products precludes them from recovering pre-suit damages with respect to this patent.

ORDER

IT IS ORDERED that

1. The motion for partial summary judgment filed by plaintiffs Ultratec, Inc. and CapTel, Inc., dkt. #87, is GRANTED with respect to

a. Direct infringement of claim 1 of the '482 patent, claim 2 of the '104 patent, claims 7 and 8 of the '578 patent and claim 1 of the '082 patent;

b. Nonanticipation of the '082, '740 and '578 patents by the '835 patent (Engelke '685);

c. Nonanticipation of the '314, '835, '740, '104 and '578 patents by the McLaughlin and Liebermann references; and

d. Nonanticipation of plaintiffs' patents-in-suit by the Engelke '482 (the '482 patent), Wycherly, Vasile, Gopalakrishnan, Bowater, Sharman and Engelke '405 references.

2. Plaintiffs' motion for partial summary judgment, dkt. #87, is DENIED with respect to direct infringement of claim 6 of the '482 patent and claim 2 of the '314 patent; anticipation of the '082 patent by McLaughlin and Liebermann; and anticipation of claim 1 of the '482 patent, the '314 patent and claim 7 of the '578 patent by Ryan.

3. The motion for partial summary judgment filed by defendants Sorenson Communications, Inc. and CaptionCall, LLC, dkt. #79, related to plaintiffs' claims for contributory infringement and pre-suit damages for the '082, '104 and '314 patents is GRANTED.

4. Defendants' motion for partial summary judgment, dkt. #79, related to plaintiffs' claims of willful infringement and induced infringement is DENIED.

5. I have construed certain claim terms as follows:

a. The terms "telephone line" and "telephone connection" in the '482 patent and the term "telephone system" in the '314 patent do not exclude internet protocol connections.

b. The terms "telecommunication device" in claim 1 of the '482 patent and claim 2 of the '314 patent and "telecommunication device within sight of the deaf person" in claim 1 of the '482 patent do not necessarily require a keyboard, display and specific type of modem.

c. The term "communication between" in claim 6 of the '482 patent may refer to a one-way or two-way communication exchange.

d. The term "modem" in claim 2 of the '314 patent is not limited to converting digital information into audio tone signals.

e. The term "internet protocol connections between the hearing user and the relay and between the assisted user and the relay" in claim 2 of the '104 patent does not require two separate and distinct connections and can not be merely a part of the signal path between the hearing user and the relay or the assisted user and the relay.

f. The term "relay system" in the '482 patent does not require the call assistant to be connected directly to the primary call between the hearing user and assisted user.

g. The preamble to claim 1 of the '082 patent does not require the captioned telephone device itself to convey both the voice of the hearing user and text to the assisted user.

6. Plaintiffs' motion, dkt. #165, to strike as untimely defendants' cross motions for summary judgment with respect to non-infringement and anticipation is GRANTED.

7. Plaintiffs' motion to strike the undisclosed opinions of Benedict Occhiogrosso, dkt. #178, is DENIED as unnecessary.

8. Defendants' motion to strike the declaration of Kevin Colwell, dkt. #241, is DENIED as moot.

9. Of the issues raised in the parties' motion for partial summary judgment, the following remain to be decided at trial:

a. Whether defendants directly infringed claim 6 of the '482 patent and claim 2 of the '314 patent;

b. Whether the '082 patent is anticipated by McLaughlin or Liebermann;

c. Whether Ryan anticipates claim 1 of the '482 patent, the '314 patent or claim 7 of the '578 patent; and

d. Whether defendants willfully infringed or induced infringement of plaintiffs' patents.

Entered this 28th day of August, 2014.

BY THE COURT:

/s/

BARBARA B. CRABB

District Judge